

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF MARTIN COUNTY WATER DISTRICT     )  
FOR AN ALTERNATIVE RATE ADJUSTMENT                 ) CASE NO. 2018-00017

NOTICE OF FILING

Notice is given to all parties that the following materials have been filed into the record of this proceeding:

- The digital video recording of the evidentiary hearing conducted on August 7, 2018 in this proceeding;
- Certification of the accuracy and correctness of the digital video recording;
- All exhibits introduced at the evidentiary hearing conducted on August 7, 2018 in this proceeding;
- A written log listing, *inter alia*, the date and time of where each witness' testimony begins and ends on the digital video recording of the evidentiary hearing conducted on August 7, 2018.

A copy of this Notice, the certification of the digital video record, hearing log, and exhibits have been electronically served upon all persons listed at the end of this Notice.

Parties desiring to view the digital video recording of the hearing may do so at

[https://psc.ky.gov/av\\_broadcast/2018-00017/2018-00017\\_07Aug18\\_Inter.aspx](https://psc.ky.gov/av_broadcast/2018-00017/2018-00017_07Aug18_Inter.aspx).

Parties wishing an annotated digital video recording may submit a written request by electronic mail to [pscfilings@ky.gov](mailto:pscfilings@ky.gov). A minimal fee will be assessed for a copy of this recording.

Done at Frankfort, Kentucky, this 14<sup>th</sup> day of August 2018.

A handwritten signature in black ink, reading "Gwen R. Pinson". The signature is written in a cursive style with a large initial 'G' and a long, sweeping underline.

---

Gwen R. Pinson  
Executive Director  
Public Service Commission of Kentucky

Brian Cumbo  
Attorney at Law  
P.O. Box 1844  
Inez, KENTUCKY 41224

Martin County Water District  
387 East Main Street, Suite 140  
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Greg Scott  
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Lexington, KENTUCKY 40507

COMMONWEALTH OF KENTUCKY  
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In the Matter of:

APPLICATION OF MARTIN COUNTY WATER	)	CASE NO.
DISTRICT FOR AN ALTERNATIVE RATE	)	2018-00017
ADJUSTMENT	)	

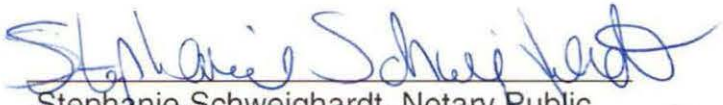
CERTIFICATION

I, Angela Fields, hereby certify that:

1. The attached DVD contains a digital recording of the Hearing conducted in the above-styled proceeding on August 7, 2018. Hearing Log, Exhibit List and Witness List are included with the recording on August 7, 2018.
2. I am responsible for the preparation of the digital recording;
3. The digital recording accurately and correctly depicts the Hearing of August 7, 2018.
4. The Hearing Log attached to this Certificate accurately and correctly states the events that occurred at the Hearing of August 7, 2018 and the time at which each occurred.

Signed this 8<sup>th</sup> day of August, 2018.

  
\_\_\_\_\_  
Angela Fields, Paralegal Consultant

  
\_\_\_\_\_  
Stephanie Schweighardt, Notary Public  
State at Large  
Commission Expires: January 14, 2019  
ID#: 525987





## Session Report - Detail

2018-00017 07AUG2018

Martin Co. Water District

Date:	Type:	Location:	Department:
8/7/2018	Alternative Rate Adjustment	Hearing Room 1	Hearing Room 1 (HR 1)

Judge: Bob Cicero; Talina Mathews; Michael Schmitt

Witness: Jason Green; Jimmy Kerr; Nina McCoy; Ariel Miller; Greg Scott; Linda Sumpter; Alan Vilines

Clerk: Angela Fields

Event Time	Log Event
8:35:29 AM	Session Started
8:35:33 AM	Session Paused
9:01:39 AM	Session Resumed
9:01:54 AM	Chairman Schmitt
	Note: Fields, Angela
	Preliminary comments - Summary of the case.
9:07:29 AM	Atty Cumbo - MCWD
	Note: Fields, Angela
	brought witnesses...
9:08:00 AM	Atty Cromer - MCCC
	Note: Fields, Angela
	Has the same witnesses as MCWD
9:08:34 AM	Atty Koenig - PSC
	Note: Fields, Angela
	Introduction of PSC staff.
9:08:54 AM	Chairman Schmitt
	Note: Fields, Angela
	Want to call Ms. McCoy
9:09:08 AM	Chairman Schmitt
	Note: Fields, Angela
	Notice in the paper. Proper notice was given. Any member of the public present who wants to give a statement?
9:09:44 AM	Chairman Schmitt
	Note: Fields, Angela
	No public Comments
9:10:08 AM	Atty Gardner - MCCC
	Note: Fields, Angela
	Adding exhibits that is not in the record - Depreciation Practices
9:11:42 AM	Atty Cumbo
	Note: Fields, Angela
	Clarification. Cover current operating status? Calls Alan Vilines to the stand.
9:12:23 AM	Atty Cumbo - direct of Vilines
	Note: Fields, Angela
	Introduce yourself to the Commission.
9:13:45 AM	Atty Cumbo - direct of Vilines
	Note: Fields, Angela
	How you become acquainted with the MCWD?
9:14:10 AM	Atty Cumbo - direct of Vilines
	Note: Fields, Angela
	Did you prepare a rate study?
9:14:23 AM	Atty Cumbo - direct of Vilines
	Note: Fields, Angela
	Did you have an opportunity to review the staff report?
9:14:49 AM	Atty Cumbo - direct of Vilines
	Note: Fields, Angela
	Response to Staff Report, page 2. Retirement expense adjustment. Explain your position on that issue.
9:16:48 AM	Atty Cumbo - direct of Vilines
	Note: Fields, Angela
	That is a fixed expense established by the state, so it will probably not go down?
9:20:08 AM	Atty Cumbo - direct of Vilines
	Note: Fields, Angela
	Of the \$63 thousand, is that assuming the General Manager will receive a comparable salary to that received by a business manager?

9:20:36 AM	Atty Cumbo - direct of Vilines Note: Fields, Angela	Water loss expenses?
9:23:56 AM	Atty Cumbo - direct of Vilines Note: Fields, Angela	Last exception computation of the increase?
9:26:07 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Who did you work with on your responses to the staff report?
9:27:01 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	In general, how many ARF applications have you prepared?
9:27:19 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Did you review the response before it was filed?
9:27:39 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	You agree with everything in the report?
9:28:00 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Did you review the water loss reports filed by the district?
9:28:19 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	You believe it should be split down the middle in order to get more revenue for the district?
9:28:44 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Aware of the issue of how water loss is being computed?
9:29:09 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Aware that current treasurer has expressed concerns regarding abuses of overtime?
9:31:05 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Existing staff. What is the staff size now compared to 2016?
9:31:33 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	General Manager. You are saying in your report that position has been filled so commission should include those additional expenses?
9:33:09 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Wouldn't it be better to ask the district to file a new rate case using info from 2018 as a test year and file in 2019?
9:34:51 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Are you aware of serveral changes since new management?
9:35:13 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	General Manager Postion. You indicated that they narrowed that down. Six months after you filed, you are still stating that money is unknown and unmeasurable?
9:36:18 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Is Mr. Scott one of the finalist for the General Manager position?
9:36:56 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Rental real estate and purchase for property number in the report. Source for those numbers come from Ms. Sumpter?
9:38:41 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Retirmeent expense. You are in agreement with the staff report with the exception of 4% adjustment?
9:39:02 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Bad debt expense of \$67 thousand. Did that come from the annual report?
9:39:30 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Bad debt written off during the test year. You would have to ask Ms. Sumpter how that was determined in 2016?
9:40:03 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Handing out document. MCCC Exhibit 1. Depreciation Practices.
9:40:39 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Refer to pg 11. Schedule of depreciation.

9:41:21 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	You worked off annual report. Did that rely on the NARUC schedule?
9:41:51 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Did the annual report have one number or a whole schedule?
9:42:42 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Have you presented to the Commission a specific listing of the adjustments you made?
9:43:13 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	On how many items did you seek adjustments to?
9:44:14 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Did you remove any items outside of the range?
9:44:30 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Did you make any adjustments to the net salvage value?
9:44:47 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	A reason why you didn't do that?
9:46:11 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	On pg 2 of the chart. Net Salvage expense.
9:48:15 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Working capital debt service coverage. Additional Working Capital on pg 14. Did that number come you?
9:49:11 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	If that number does not come up to exactly to that number then it is a typo?
9:49:44 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Does that include the lease payments on the KACO lease?
9:50:12 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Annual principle and interest payments. Does is show where that \$209,998 figure comes from?
9:50:56 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Those lease payments are included in the principle indebtedness?
9:52:00 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Wholesale sales revenue. Run throught that again in your report.
9:52:50 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Your response to the staff report does not have the amount of expenses that you deducted as well. Can you show that to me?
9:54:50 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	The deducting expenses was not included in the text of the response?
9:56:03 AM	Atty Gardner- cross of Vilines Note: Fields, Angela	Expense categories, other, misc., etc. Those categories came from the annual report that was prepared by Ms. Sumpter?
9:56:48 AM	Atty Koenig - cross Vilines Note: Fields, Angela	ARFApplication. Do you know of any known and measurable changes since the filing of the report?
9:57:39 AM	Atty Koenig - cross Vilines Note: Fields, Angela	Do you know of any expenses from an intake system?
9:57:55 AM	Atty Koenig - cross Vilines Note: Fields, Angela	Have you seen any invoices?
9:58:12 AM	Atty Koenig - cross Vilines Note: Fields, Angela	As a PHDR can you supply the wage rate and salary for that position?
9:58:36 AM	Atty Koenig - cross Vilines Note: Fields, Angela	Position for General Manager. It is not a known and measurabe amount yet?

9:59:50 AM	Atty Koenig - cross Vilines Note: Fields, Angela	Have you ever dealt with another water district with similar issues as Martin Co.?
10:00:11 AM	VC Cicero Note: Fields, Angela	What role do you currently play for MCDW?
10:00:45 AM	VC Cicero Note: Fields, Angela	You have an engineering background but not a finance background?
10:01:21 AM	VC Cicero Note: Fields, Angela	Who assisted when you filed out the ARF?
10:02:27 AM	VC Cicero Note: Fields, Angela	It would be good if the MCDW would take some steps resolve that issue with the GM.
10:03:46 AM	VC Cicero Note: Fields, Angela	Overtime reference related to repairing line causing high water loss. Agree cold weather that impacted that expense?
10:04:52 AM	VC Cicero Note: Fields, Angela	Bad debt of \$67 thousand. Is that a representative year?
10:05:48 AM	VC Cicero Note: Fields, Angela	Putting in base rates you will put in an increase that will never go away?
10:06:07 AM	VC Cicero Note: Fields, Angela	Should the commission reward poor management?
10:06:51 AM	Chairman Schmitt Note: Fields, Angela	Present status was extraordinary. You were asked if you had any knowledge of other water district with similar issues. What is your opinion on how Martin Co. got in this position?
10:07:51 AM	Chairman Schmitt Note: Fields, Angela	Do you know when they last asked for a rate increase? Is that good practice in your opinion?
10:08:21 AM	Chairman Schmitt Note: Fields, Angela	In 1998, 1999, 2000, and 2001 Martin was before the PSC with the same problems. A management audit was performed that gave recommendation for the district take to achieve financial viability?
10:09:33 AM	Chairman Schmitt Note: Fields, Angela	Interim rate increase of 17.5%. Have you reviewed the operations of the district and the revenue and expenses between the date of the increase and the present time?
10:10:25 AM	Chairman Schmitt Note: Fields, Angela	Why is the increase not adequate in your opinion?
10:11:15 AM	Chairman Schmitt Note: Fields, Angela	How much in terms of total dollars on what you come back with on a response are we talking about?
10:12:10 AM	Chairman Schmitt Note: Fields, Angela	Per meter surcharge. What was the meter surcharge for?
10:12:35 AM	Chairman Schmitt Note: Fields, Angela	With your increase of 35%, would district be able to pay off indebtiness?
10:13:13 AM	Chairman Schmitt Note: Fields, Angela	Aware the Commission granted the interim increase, MCWD accounts payable debt has increased?
10:14:03 AM	Chairman Schmitt Note: Fields, Angela	Would it be better for rate payers if the MCDW would put the service up for sale?

10:14:38 AM	Chairman Schmitt Note: Fields, Angela	Did you manage Warren Co distict for a number of years?
10:15:21 AM	Chairman Schmitt Note: Fields, Angela	Aware that Martin Co. population is declining?
10:15:52 AM	Chairman Schmitt Note: Fields, Angela	If increase you recommended is granted, how long would the increase satisfy the district before the next rate increase?
10:17:19 AM	Chairman Schmitt Note: Fields, Angela	Many rural water district delay a rate increase. When the commission recomends a rate increase over what was requested, almost 98% of the time districts refuse to take the extra increase in rates recommended by staff.
10:19:33 AM	Chairman Schmitt Note: Fields, Angela	Agree that management's duty is to the district and keeping it able to provide for its ratepayers.
10:19:59 AM	Chairman Schmitt Note: Fields, Angela	Martin Co. is going to be the recipient of one or two grants, correct?
10:20:22 AM	Chairman Schmitt Note: Fields, Angela	Familiar if those funds are limited on what the money can be used for? Are they restricted?
10:21:33 AM	Chairman Schmitt Note: Fields, Angela	Grants isn't enough to fix all the problems MCWD has?
10:22:23 AM	Chairman Schmitt Note: Fields, Angela	Can't sell 28% of water produced and survive?
10:23:40 AM	Chairman Schmitt Note: Fields, Angela	What is the purpose of the rate increase that you are advocating?
10:25:14 AM	Chairman Schmitt Note: Fields, Angela	The rate increase is to fix the system and provide good water in the future?
10:27:11 AM	VC Cicero Note: Fields, Angela	Attempt to develop a priority list of projects to make the improvements?
10:28:10 AM	VC Cicero Note: Fields, Angela	The original list was about plant improvement the repairing the water lines?
10:29:03 AM	Session Paused	
10:44:10 AM	Session Resumed	
10:44:15 AM	Atty Cumbo - direct Kerr Note: Fields, Angela	State your for the record. How do you feel about things today?
10:45:20 AM	Atty Cumbo - direct Kerr Note: Fields, Angela	Talk about positives. Advise the PSC of changes the board has implemented since the last hearing.
10:49:34 AM	Atty Cumbo - direct Kerr Note: Fields, Angela	Advise the PSC of the extraordinary circumstances since last hearing.
10:51:59 AM	Atty Cumbo - direct Kerr Note: Fields, Angela	Negotiations with Prestonsburg utilities?
10:55:45 AM	Atty Cumbo - direct Kerr Note: Fields, Angela	Presonsburg not intested in leasing or purchasing the tank?
10:56:00 AM	Atty Cumbo - direct Kerr Note: Fields, Angela	What is the status of the grants?
10:57:27 AM	Atty Cumbo - direct Kerr Note: Fields, Angela	Timeline is 30 days for the request for proposal?
10:57:57 AM	Atty Cumbo - direct Kerr Note: Fields, Angela	Cash flow position?

10:58:31 AM	Atty Cumbo - direct Kerr Note: Fields, Angela	Can the district survive with the rate increase proposed by the staff?
11:11:26 AM	Atty Cumbo - direct Kerr Note: Fields, Angela	Taking politics out of running the water district.
11:11:59 AM	Atty Cumbo - direct Kerr Note: Fields, Angela	Discussion with Judge Callihan.
11:13:32 AM	Atty Gardner Note: Fields, Angela	Moved to introduce MCCC Exh. 1.
11:14:02 AM	Atty Cromer - cross Kerr Note: Fields, Angela	Overtime. The crews will provide coverage without overtime?
11:15:12 AM	Atty Cromer - cross Kerr Note: Fields, Angela	Is the board concerned with the overtime hours?
11:15:45 AM	Atty Cromer - cross Kerr Note: Fields, Angela	In process on hiring a permanent GM. Indicated if Mr. Scott has applied?
11:16:04 AM	Atty Cromer - cross Kerr Note: Fields, Angela	Mr Scott would still work at his current salary?
11:17:38 AM	Atty Cromer - cross Kerr Note: Fields, Angela	District's current plan to pay off the debt?
11:19:55 AM	Atty Cromer - cross Kerr Note: Fields, Angela	The three creditors is just a fraction of the debt?
11:20:28 AM	Atty Cromer - cross Kerr Note: Fields, Angela	Has the board voted on any written policy on the order of things being paid?
11:20:54 AM	Atty Cromer - cross Kerr Note: Fields, Angela	Two large grants coming in. How will that money be disbursed?
11:21:48 AM	Atty Cromer - cross Kerr Note: Fields, Angela	When you get an invoice for a bill, give it to Big Sandy and they will pay the bill?
11:22:41 AM	Atty Cromer - cross Kerr Note: Fields, Angela	The larger grant. What degree is the district locked in to an engineering plan for how that money is issued?
11:23:41 AM	Atty Cromer - cross Kerr Note: Fields, Angela	June was a bad month. Were any of those expenses unpredictable?
11:25:24 AM	Atty Cromer - cross Kerr Note: Fields, Angela	PHDR. Copy of MOU on the grants?
11:26:00 AM	Atty Koenig - cross Kerr Note: Fields, Angela	Accounts payable. Explain why the accounts payable went up?
11:28:39 AM	Atty Koenig - cross Kerr Note: Fields, Angela	Was any of that information included in the monthly report?
11:29:59 AM	Atty Koenig - cross Kerr Note: Fields, Angela	Do you prepare the monthly report? Who does that?
11:30:26 AM	Atty Koenig - cross Kerr Note: Fields, Angela	Are there other people in the office that track payments and invoices?
11:31:54 AM	Atty Koenig - cross Kerr Note: Fields, Angela	PHDR - Provide copy of the demand letter from AEP and any documents regarding repairs to the intake system.
11:33:19 AM	Atty Koenig - cross Kerr Note: Fields, Angela	Documentation for invoices?

11:34:02 AM	Atty Koenig - cross Kerr Note: Fields, Angela	Is there a problem with communication between the utility and the attorney?
11:34:44 AM	Atty Koenig - cross Kerr Note: Fields, Angela	If there is no evidence in the record, then there is no basis for the rate increase.
11:36:34 AM	Atty Koenig - cross Kerr Note: Fields, Angela	You would agree we are talking about different numbers and what you can document in the record. You understand that a request for more money has to be documented.
11:38:14 AM	Atty Bowker - cross Kerr Note: Fields, Angela	How long are you able to shut the plant down per day?
11:38:54 AM	Atty Bowker - cross Kerr Note: Fields, Angela	Buoy system in place?
11:39:41 AM	Atty Bowker - cross Kerr Note: Fields, Angela	Co-system to help the sand issue?
11:40:03 AM	Atty Bowker - cross Kerr Note: Fields, Angela	Who is responsible at the district for updating?
11:40:35 AM	Atty Bowker - cross Kerr Note: Fields, Angela	Last time the plant was cleaned?
11:41:16 AM	Atty Bowker - cross Kerr Note: Fields, Angela	Is the raw water intake functioning?
11:41:49 AM	Atty Bowker - cross Kerr Note: Fields, Angela	Any update about the school project?
11:42:20 AM	Atty Bowker - cross Kerr Note: Fields, Angela	School project look to be on time to you?
11:42:38 AM	Atty Bowker - cross Kerr Note: Fields, Angela	Conversations with Prestonsburg. Able to figure out how the billing works from Prestonsburg?
11:44:17 AM	Atty Bowker - cross Kerr Note: Fields, Angela	You invited MCCC representative to the board meetings? Do they come to the meetings?
11:44:47 AM	Atty Bowker - cross Kerr Note: Fields, Angela	Is the BFD pump up and running?
11:45:19 AM	VC Cicero Note: Fields, Angela	Appreciate the extended answers. How many people work on the requests before they are sent out?
11:46:54 AM	VC Cicero Note: Fields, Angela	Monthly updates. June 14, 2018 submission. Your response 1 was totally redacted.
11:51:11 AM	VC Cicero Note: Fields, Angela	No discussion about retaining the service of a collection agency?
11:52:01 AM	VC Cicero Note: Fields, Angela	Write off anything older than 24 months. If you put those things in your report, we will understand what you are doing.
11:53:48 AM	VC Cicero Note: Fields, Angela	AEP power situation. Have they been charging a penalty?
11:55:02 AM	VC Cicero Note: Fields, Angela	Anyone else give penalty for late payment?
11:55:42 AM	VC Cicero Note: Fields, Angela	Leased tank. Have not agreed with Prestonsburg about the computations?
11:57:27 AM	VC Cicero Note: Fields, Angela	Do you still believe if you do not receive the total recommendation, then the district will fail?

12:04:58 PM	Commissioner Mathews Note: Fields, Angela	You do not have a paid grade. You are not being paid?
12:05:37 PM	Commissioner Mathews Note: Fields, Angela	No one wants a new GM more than you?
12:06:05 PM	Commissioner Mathews Note: Fields, Angela	General Manager candidate. You mentioned you want someone with writing skills, accounting, and water district management experience?
12:06:45 PM	Commissioner Mathews Note: Fields, Angela	New relationship with Presonsburg. Renegotiation was not a good deal?
12:07:21 PM	Commissioner Mathews Note: Fields, Angela	Are you comfortable that changes are being made that you will not be in the same situation in January, as you were last January?
12:08:44 PM	Session Paused	
1:10:54 PM	Session Resumed	
1:11:01 PM	Chairman Schmitt Note: Fields, Angela	You are aggravated about the requests from staff. The entity before the Commission is the MCWD. MCCC and others are upset or don't understand the facts and the problems.
1:16:00 PM	Chairman Schmitt Note: Fields, Angela	The district has obtained candidates in the General Manager position. Where did you advertise?
1:17:36 PM	Chairman Schmitt Note: Fields, Angela	Did you advertise a salary range?
1:18:56 PM	Chairman Schmitt Note: Fields, Angela	How many customers do you have in the system?
1:20:21 PM	Chairman Schmitt Note: Fields, Angela	When do you intend to interview candidates?
1:20:53 PM	Chairman Schmitt Note: Fields, Angela	Would the board consider hiring someone not from Martin Co?
1:24:39 PM	Chairman Schmitt Note: Fields, Angela	At present, is the district asking for the 36% increase or the 49.6%?
1:26:01 PM	Chairman Schmitt Note: Fields, Angela	3.4 million on abandon lines grant. You do not have that money yet?
1:27:14 PM	Chairman Schmitt Note: Fields, Angela	Is that money restricted to pumping water from the river to the plant?
1:28:05 PM	Chairman Schmitt Note: Fields, Angela	Intake system. Do you know if the grant money will allow you to be able to reimburse itself?
1:29:02 PM	Chairman Schmitt Note: Fields, Angela	ARC Grant for service line and meter replacement.
1:30:06 PM	Chairman Schmitt Note: Fields, Angela	Already to made the decision to replace the meters and service lines?
1:30:39 PM	Chairman Schmitt Note: Fields, Angela	Work is going to be done by a third party contractor?
1:31:04 PM	Chairman Schmitt Note: Fields, Angela	Where do most of the complaints come from?
1:31:32 PM	Chairman Schmitt Note: Fields, Angela	Any member of the water district live in the area where the service area is bad?



1:33:01 PM	Chairman Schmitt Note: Fields, Angela	Believe that the complaints that the people make are true or are exaggerated?
1:35:28 PM	Chairman Schmitt Note: Fields, Angela	Some basis for the complaints when so many parties become involved.
1:37:30 PM	Chairman Schmitt Note: Fields, Angela	Will you using a portion of the increase to begin to replace infrastructure?
1:39:13 PM	Chairman Schmitt Note: Fields, Angela	Granting Water Distrists money under pipeline replacement and infrastructure program, used only for infrastructure projects approved by the Commission. Dedicated funds for infrastructure might make since.
1:41:28 PM	Chairman Schmitt Note: Fields, Angela	Your are paying \$7 for 1000 gallons to Prestonsburg. Arrangement suggested by Martin Co. District?
1:42:58 PM	Chairman Schmitt Note: Fields, Angela	PHDR - working out contract with Prestonsburg. If an agreement cannot be worked out, consider asking the PSC if rates are fair, just and reasonable.
1:46:33 PM	Chairman Schmitt Note: Fields, Angela	Surcharge to pay loans. How much money is in that account at that time.
1:48:14 PM	Chairman Schmitt Note: Fields, Angela	Why does Zip Zone still provide you with gas?
1:49:26 PM	Chairman Schmitt Note: Fields, Angela	What will it take to get a loan?
1:52:00 PM	Chairman Schmitt Note: Fields, Angela	Assuming in the next 2 to 3 years, if system cannot keep its head above water, would the commissioners be open to the idea of sale or merger with another water district?
1:55:47 PM	Atty Cumbo - direct Sumpter Note: Fields, Angela	State your name for the record.
1:56:28 PM	Atty Cumbo - direct Sumpter Note: Fields, Angela	Are you in agreement that the current emergancy rate is sufficient?
1:56:55 PM	Atty Cumbo - direct Sumpter Note: Fields, Angela	Adverse events in June and July. Advise the commission what the figures were?
1:58:40 PM	Atty Cumbo - direct Sumpter Note: Fields, Angela	The AEP bill, was that around \$30 thousand?
1:59:46 PM	Atty Cumbo - direct Sumpter Note: Fields, Angela	Have an opinion if the rate increase proposed by the staff would be sufficient?
2:00:14 PM	Atty Cumbo - direct Sumpter Note: Fields, Angela	Would the 49.6% increase requested by he district be sufficient?
2:01:11 PM	Atty Cumbo - direct Sumpter Note: Fields, Angela	Mr. Kerr still meeting with you weekly?
2:01:27 PM	Atty Cromer - cross Sumpter Note: Fields, Angela	You provided information for application process?
2:01:58 PM	Atty Cromer - cross Sumpter Note: Fields, Angela	When the district plans to file its annual report?
2:02:39 PM	Atty Cromer - cross Sumpter Note: Fields, Angela	Bad debt expense. What is it and how was it determined?

2:03:22 PM	Atty Cromer - cross Sumpter Note: Fields, Angela	How were they determined in 2016?
2:03:41 PM	Atty Cromer - cross Sumpter Note: Fields, Angela	Bad debt expense in 2016 was 20% less. What accounts for that?
2:04:34 PM	Atty Cromer - cross Sumpter Note: Fields, Angela	During the time you worked for the district, is that the method that has been used?
2:05:02 PM	Atty Cromer - cross Sumpter Note: Fields, Angela	Explain why the accounts receivable decreasing would change the method?
2:05:44 PM	Atty Cromer - cross Sumpter Note: Fields, Angela	Late payments. Were late payments included in the 2016 expenses?
2:06:22 PM	Atty Cromer - cross Sumpter Note: Fields, Angela	Even's Hardware charges a 6% late payment fee?
2:06:52 PM	Atty Cromer - cross Sumpter Note: Fields, Angela	Catagories that are in the rate schedule. Contractual service other catagory. What does that include?
2:07:57 PM	Atty Cromer - cross Sumpter Note: Fields, Angela	Income statements. Accounting codes that breakdown contractual services.
2:08:56 PM	Atty Cromer - cross Sumpter Note: Fields, Angela	2016 expenses would be in one of those catagories?
2:09:19 PM	Atty Cromer - cross Sumpter Note: Fields, Angela	Would pump repair be a contractual service?
2:10:15 PM	Atty Cromer - cross Sumpter Note: Fields, Angela	Breakdown of costs improvements for March, April, and May. Contractual services was one of the categories included?
2:10:53 PM	Atty Cromer - cross Sumpter Note: Fields, Angela	in the 2016, What does operating expenses "other" include?
2:11:25 PM	Atty Cromer - cross Sumpter Note: Fields, Angela	What does the miscellaneous expenses include? Examples of those?
2:12:12 PM	Atty Cromer - cross Sumpter Note: Fields, Angela	In the Equipment rental catagory. TOM and DM catagory stand for?
2:13:25 PM	Atty Cromer - cross Sumpter Note: Fields, Angela	AEP at or near the top of priorities, how did the district get so behind on the bills?
2:14:56 PM	Atty Koenig - cross Sumpter Note: Fields, Angela	Handing out documents. Already in the record, and just refering to them.
2:16:51 PM	Atty Koenig - cross Sumpter Note: Fields, Angela	Please refer to the "Exhibit 1" document I handed out for your reference. Do the amounts listed represented the amounts written off?
2:18:21 PM	Atty Koenig - cross Sumpter Note: Fields, Angela	Who is authorized to write off accounts?
2:19:09 PM	Atty Koenig - cross Sumpter Note: Fields, Angela	Confusion on filings from the district. Policy in place if an account is uncollectable. Is there a detailed listing as to why an account is uncollectable?
2:20:52 PM	VC Cicero Note: Fields, Angela	Does this policy exist somewhere in written format?

2:21:31 PM	VC Cicero Note: Fields, Angela	You have not seen anything that said to write anything off 24 months or over in writting?
2:22:01 PM	VC Cicero Note: Fields, Angela	The commission would like to see a balance sheet. We are looking for the age of the receivable that was written off and account numbers.
2:24:03 PM	Atty Koenig - cross Sumpter Note: Fields, Angela	Cash dispersments Journal. What does this document represent
2:27:02 PM	VC Cicero Note: Fields, Angela	It only list the invoice numbers being paid, It does not list everything that goes with the invoices?
2:27:42 PM	Atty Koenig - cross Sumpter Note: Fields, Angela	Zip Zone Check, Paid 40 invoices with one check?
2:29:04 PM	VC Cicero Note: Fields, Angela	Looks like you paid some really old Zip Zone invoices, how did that become a preference?
2:30:13 PM	VC Cicero Note: Fields, Angela	That still does not explain why the balance goes down.
2:32:03 PM	Atty Koenig - cross Sumpter Note: Fields, Angela	Pg 1 check 1382 written for milage to Troy Horn? What was that for?
2:32:30 PM	Atty Koenig - cross Sumpter Note: Fields, Angela	What is your milage rate?
2:33:10 PM	Atty Koenig - cross Sumpter Note: Fields, Angela	Zip Zone invoices. Check No. 13840 to pay for serveral invoices. Questions about specific amounts.
2:34:22 PM	Atty Koenig - cross Sumpter Note: Fields, Angela	Page 2, check #13838 Gavo supply corporation?
2:35:09 PM	Atty Koenig - cross Sumpter Note: Fields, Angela	Pg 11, check no. 3215 debt service surcharge?
2:36:02 PM	Atty Koenig - cross Sumpter Note: Fields, Angela	Check no. 13891 blue water ky?
2:36:31 PM	Atty Koenig - cross Sumpter Note: Fields, Angela	Pg 12. Check for correction for 63 cents?
2:37:10 PM	Atty Koenig - cross Sumpter Note: Fields, Angela	Check no. 13894 Appalachan Political.
2:37:40 PM	Atty Koenig - cross Sumpter Note: Fields, Angela	Check no. 13901 OH child support payment central?
2:38:14 PM	Atty Koenig - cross Sumpter Note: Fields, Angela	Vendors who charge late fees. Provide a list?
2:39:26 PM	Atty Koenig - cross Sumpter Note: Fields, Angela	Accounts payable by priority document, Exhibit 3. How does the priority system work?
2:40:47 PM	Atty Koenig - cross Sumpter Note: Fields, Angela	Utilities are labeled number 4, so they are paid 4th in line?
2:41:47 PM	Atty Koenig - cross Sumpter Note: Fields, Angela	PHDR - refer to Exhibit 5 to Aug. 6th filing. Daily sheets. Provide a summary by day of deposits.
2:42:48 PM	VC Cicero Note: Fields, Angela	Is your software customizable to print what you want? Can you include the invoice date of the invoice being paid?
2:43:22 PM	VC Cicero Note: Fields, Angela	You said Martin Co. could survive another 3 to 4 months before failing. Please provide an update on where they stand now.

2:46:44 PM	Chairman Schmitt Note: Fields, Angela	Has the auditor been paid?
2:47:15 PM	Chairman Schmitt Note: Fields, Angela	When should the 2016 should have been filed?
2:47:32 PM	Chairman Schmitt Note: Fields, Angela	Has any work been done on the 2017 audit?
2:48:24 PM	Chairman Schmitt Note: Fields, Angela	Why have they decided to do this , have they been promised to be paid?
2:48:47 PM	Chairman Schmitt Note: Fields, Angela	Will the district be responsible for the 2017 audit?
2:49:21 PM	Atty Cromer - cross Sumpter Note: Fields, Angela	June payment of \$28,042. June was the month when all the payments come due, Why did the district choose to pay this Zip Zone bill in June?
2:50:42 PM	Atty Cromer - cross Sumpter Note: Fields, Angela	Was Zip Zone threatning collections?
2:51:23 PM	Atty Cromer - cross Sumpter Note: Fields, Angela	Was it your understanding there was a implicit threat from Zip Zone to send bills to collections? Who would know?
2:52:12 PM	Session Paused	
3:03:44 PM	Session Resumed	
3:03:54 PM	Atty Cumbo - direct Scott Note: Fields, Angela	State your name for the record.
3:04:28 PM	Atty Cumbo - direct Scott Note: Fields, Angela	Discuss what has happened since the last hearing. Talk about the modifications to the purchase order system.
3:05:04 PM	Atty Cumbo - direct Scott Note: Fields, Angela	Update the commission on the problems at the river.
3:08:41 PM	Atty Cumbo - direct Scott Note: Fields, Angela	Who gave you the VFD?
3:10:35 PM	Atty Cumbo - direct Scott Note: Fields, Angela	\$95 thousand spent on the intake pumps?
3:11:36 PM	Atty Cumbo - direct Scott Note: Fields, Angela	If it wasn't for kindness of Thornberg and Evans you couldn't have operated?
3:13:37 PM	Atty Cumbo - direct Scott Note: Fields, Angela	Is that why we have asked the commission to pay \$10 thousand each to Thornburg and Evans?
3:14:49 PM	Atty Cromer - cross Scott Note: Fields, Angela	Estimate the number of days or weeks that the system has been unable to pump from the river since you started?
3:15:31 PM	Atty Cromer - cross Scott Note: Fields, Angela	When the pumps don't work, do you rely on rainwater?
3:15:54 PM	Atty Cromer - cross Scott Note: Fields, Angela	Where are you getting the water when the pumps are down?
3:16:17 PM	Atty Cromer - cross Scott Note: Fields, Angela	District renting any equipment?
3:17:08 PM	Atty Cromer - cross Scott Note: Fields, Angela	Other than the pump, is the district renting any other equipment?
3:17:26 PM	Atty Cromer - cross Scott Note: Fields, Angela	How many hours a week do you work?
3:17:39 PM	Atty Cromer - cross Scott Note: Fields, Angela	Using the McCoy & McCoy labs?

3:17:57 PM	Atty Cromer - cross Scott Note: Fields, Angela	District exceptions, trying to get the water loss down. AML money is going to be used to replace the water lines. How much will that improve the water loss?
3:18:46 PM	Atty Cromer - cross Scott Note: Fields, Angela	Any current funds to replace the main lines in the area?
3:19:07 PM	Atty Cromer - cross Scott Note: Fields, Angela	What do you think is wrong with the reports?
3:19:47 PM	Atty Cromer - cross Scott Note: Fields, Angela	Master meter in the plant?
3:20:07 PM	Atty Cromer - cross Scott Note: Fields, Angela	How much will the master meter cost?
3:20:28 PM	Atty Cromer - cross Scott Note: Fields, Angela	The plant will have to be down to do the install?
3:20:50 PM	Atty Cromer - cross Scott Note: Fields, Angela	Testing water in home taps?
3:21:02 PM	Atty Cromer - cross Scott Note: Fields, Angela	What are you testing for?
3:21:23 PM	Atty Cromer - cross Scott Note: Fields, Angela	Fuel Procedures?
3:21:35 PM	Atty Cromer - cross Scott Note: Fields, Angela	Purchase order procedures?
3:22:26 PM	Atty Cromer - cross Scott Note: Fields, Angela	Non-fuel expenses. Is there a particular type of an expense you have been able to save money on?
3:23:06 PM	Atty Cromer - cross Scott Note: Fields, Angela	Payment to Zip Zone. Did you make the decision to make that payment?
3:24:42 PM	Atty Cromer - cross Scott Note: Fields, Angela	Had already paid Zip Zone before the motion was filed.
3:25:04 PM	Atty Cromer - cross Scott Note: Fields, Angela	June was a bad month, so why pay Zip Zone in June?
3:27:03 PM	Atty Cromer - cross Scott Note: Fields, Angela	Meeting with vendor to discuss payment plans. Did you do that with AEP?
3:27:27 PM	Atty Koenig - cross Scott Note: Fields, Angela	You changed the purchase order procedure system. Can you provide that procedure in as PHDR to the Commission?
3:28:15 PM	Atty Koenig - cross Scott Note: Fields, Angela	Are you doing those reports?
3:28:25 PM	Atty Koenig - cross Scott Note: Fields, Angela	Clarifications on how those are filed and what needs to be filed.
3:29:08 PM	Atty Koenig - cross Scott Note: Fields, Angela	Motion to pay vital creditors. Was that your decision?
3:30:21 PM	Atty Koenig - cross Scott Note: Fields, Angela	Misunderstanding with the Commission regarding filings. Were you clear on what was filed? Did you provide that list of invoices from Thornberg?
3:31:04 PM	Atty Koenig - cross Scott Note: Fields, Angela	Understandable that we want to see the invoices?
3:31:34 PM	Atty Koenig - cross Scott Note: Fields, Angela	Plan to pay accounts payable, priority, etc. Your decision to pay Zip Zone was a plan you discussed with the board?

3:32:21 PM	VC Cicero Note: Fields, Angela	Summary with the exceptional items with the variances.
3:33:18 PM	VC Cicero Note: Fields, Angela	Small expenses. What can be 2.99 and 2.98?
3:34:18 PM	VC Cicero Note: Fields, Angela	New purchase order and system. You will submit that procedure?
3:34:49 PM	VC Cicero Note: Fields, Angela	Can we get examples so we can see how the system works.
3:35:11 PM	VC Cicero Note: Fields, Angela	Who will be responsible for memorializing the bad debt policy?
3:35:58 PM	VC Cicero Note: Fields, Angela	List of the CI Thornberg invoices. Was there invoices you couldn't find on file?
3:36:36 PM	VC Cicero Note: Fields, Angela	Any missing invoices?
3:36:49 PM	VC Cicero Note: Fields, Angela	River intake issues. There has to be someone directing your staff while you are working on the intake system.
3:38:25 PM	Commission Mathews Note: Fields, Angela	\$90 thousand spent on the intake repairs. Tell me how the money was spent.
3:40:56 PM	Chairman Schmitt Note: Fields, Angela	Samples at customers' homes. Who takes the sample?
3:41:42 PM	Chairman Schmitt Note: Fields, Angela	Are those samples identified by the name of the customer and sent to McCoy and McCoy? Get a report back? Maintain those reports?
3:42:42 PM	Chairman Schmitt Note: Fields, Angela	Is the customer sent a copy of the test results?
3:43:03 PM	Chairman Schmitt Note: Fields, Angela	Have there been tests since you have been interim manager?
3:45:22 PM	Atty Cumbo - direct Heitzman Note: Fields, Angela	State your name and affiliation.
3:45:45 PM	Atty Cumbo - direct Heitzman Note: Fields, Angela	Status of the grants?
3:48:38 PM	Atty Cumbo - direct Heitzman Note: Fields, Angela	How is the money being managed?
3:53:08 PM	Atty Cumbo - direct Heitzman Note: Fields, Angela	Rate increase. Did you assist Alan Vilines in putting the application together?
3:58:01 PM	Atty Cromer - cross Heitzman Note: Fields, Angela	Grant. Is the scope for replacement of a master line?
3:58:45 PM	Atty Cromer - cross Heitzman Note: Fields, Angela	For a main line replacement that money will have to come from somewhere else?
3:58:55 PM	VC Cicero Note: Fields, Angela	Your contract was renewed with Martin Co. in June?
3:59:35 PM	VC Cicero Note: Fields, Angela	The original extension was worth how much money?
4:00:23 PM	VC Cicero Note: Fields, Angela	How much did you bill for that six months?
4:00:53 PM	VC Cicero Note: Fields, Angela	How much have you billed from January thru June?
4:01:43 PM	VC Cicero Note: Fields, Angela	Performing in how the grant money should be spent?

4:03:18 PM	VC Cicero Note: Fields, Angela	What will you be doing in the next six months and how much of that is to not exceed contract?
4:04:45 PM	VC Cicero Note: Fields, Angela	Total for two years will be \$24 thousand?
4:05:39 PM	VC Cicero Note: Fields, Angela	Balance through depreciation.
4:08:36 PM	Commissioner Mathews Note: Fields, Angela	The thousands of service lines placed on bid, do you have any guess on how that will help the water loss?
4:09:31 PM	Commissioner Mathews Note: Fields, Angela	Patch-it approach. Are there resources now to be able to replace a section leak instead of patching it?
4:11:51 PM	Chairman Schmitt Note: Fields, Angela	Advertised for bid in a short period of time? What particular expert or experience is needed to place the lines?
4:13:40 PM	Chairman Schmitt Note: Fields, Angela	Anyone could bid on this project, correct?
4:14:11 PM	Chairman Schmitt Note: Fields, Angela	Will bidder be required to post bonds?
4:14:36 PM	Chairman Schmitt Note: Fields, Angela	Who will evaluate the bids?
4:15:26 PM	Chairman Schmitt Note: Fields, Angela	Will the recommendation be in writing so the public can see it?
4:16:35 PM	Chairman Schmitt Note: Fields, Angela	Type of bid that will be scored?
4:18:03 PM	Chairman Schmitt Note: Fields, Angela	Article in Mountain Citizen.
4:19:44 PM	Chairman Schmitt Note: Fields, Angela	How important is the office of General Manager?
4:20:34 PM	Chairman Schmitt Note: Fields, Angela	What kind of experience, education or training would expect a good general manager to have?
4:21:46 PM	Chairman Schmitt Note: Fields, Angela	What kind of salary would that person demand?
4:22:22 PM	Chairman Schmitt Note: Fields, Angela	I will tell you what I think regarding the general manager position.
4:23:14 PM	VC Cicero - Additional question for Kerr Note: Fields, Angela	Martin Co. pays 100% to health and dental insurance. Is Martin Co. still instead to pay the full amount on these premiums?
4:27:33 PM	Atty Gardner - direct Green Note: Fields, Angela	State your name and position
4:28:11 PM	Atty Gardner - direct Green Note: Fields, Angela	Your reviewed the reported revenue and rate design for Martin Co.?
4:28:37 PM	Atty Gardner - direct Green Note: Fields, Angela	Staff Report A,B and C. You put in a place holder did not allow for a reduction in water sales?
4:29:15 PM	Atty Gardner - direct Green Note: Fields, Angela	With respect ot C looks like it is dealing with the Prestonsburg contract. Where did \$106,066 number came from. Is that related to Prestonsburg?
4:30:50 PM	Atty Gardner - direct Miller Note: Fields, Angela	state name and employer and position

4:31:35 PM	Atty Gardner - direct Miller Note: Fields, Angela	Did you reviewed the overall revenue requirement calculation? Did you go to Martin Co. to do that?
4:32:06 PM	Atty Gardner - direct Miller Note: Fields, Angela	How many ARF applications have you worked on at the Commission.
4:32:35 PM	Atty Gardner - direct Miller Note: Fields, Angela	Item C in the staff report - Contract with Prestonsburg. How were those numbers computed?
4:33:45 PM	Atty Gardner - direct Miller Note: Fields, Angela	Late payments. Are those allowed for ratemaking purposes?
4:34:24 PM	Atty Gardner - direct Miller Note: Fields, Angela	It is possible that there could be additional disallowance of expenses for fees for late payments.
4:34:55 PM	Atty Gardner - direct Miller Note: Fields, Angela	Debt service working capital. It is standard to use the 120% figure for debt coverage? Did you have an opportunity to look at the loan documents to see if the coverage by the loans were 120%?
4:37:38 PM	Atty Gardner - direct Miller Note: Fields, Angela	Depreciation related to the net salvage value? What has the commission historically used?
4:39:04 PM	Atty Gardner - direct Miller Note: Fields, Angela	When you consider bad debt expense, what evidence should there be with this particular debt written off in the test year? How do you calculate bad debt used as an expense?
4:41:27 PM	Atty Gardner - direct Miller Note: Fields, Angela	Have you since made an adjustment?
4:43:11 PM	Atty Cumbo - cross Miller Note: Fields, Angela	Pg 7 of the staff report regarding wages. Would you agree the general manager salary is not a realistic number?
4:44:39 PM	VC Cicero Note: Fields, Angela	Did you look at one test year?
4:45:03 PM	VC Cicero Note: Fields, Angela	Salvage value. Given the state of the Martin Co. system wouldn't you agree that Salvage value is most likely zero regardless?
4:45:39 PM	Atty Koenig - cross Miller Note: Fields, Angela	Clarification on Gardner's questions about no red flags raised at the issue with bad debt.
4:46:52 PM	Atty Koenig - cross Miller Note: Fields, Angela	In response to Mr. Cumbo's question, 9,000 for the GM is what is in the record? Could you just make up a number for this if it wasn't provided?
4:47:11 PM	Atty Koenig - cross Miller Note: Fields, Angela	Would it be best accounting practices for you create a number for the salary?
4:48:02 PM	Atty Koenig - cross Miller Note: Fields, Angela	Your calculation is base on what Martin Co. has provided?
4:48:57 PM	Chairman Schmitt - direct McCoy Note: Fields, Angela	State name and address.
4:49:27 PM	Chairman Schmitt - direct McCoy Note: Fields, Angela	How many years did you teach school?
4:49:46 PM	Chairman Schmitt - direct McCoy Note: Fields, Angela	What position do you hold with MCCC?
4:50:16 PM	Chairman Schmitt - direct McCoy Note: Fields, Angela	How many members belong to MCCC?



4:51:01 PM	Chairman Schmitt - direct McCoy Note: Fields, Angela	Are there still areas in Martin Co. that still have concerns or complaints about the water service?
4:51:43 PM	Chairman Schmitt - direct McCoy Note: Fields, Angela	Are the complaints from people that the water smells or is discolored?
4:52:37 PM	Chairman Schmitt - direct McCoy Note: Fields, Angela	June 25, 2018 editorial in the Mountain Citizen paper. Do you have an opinion if the statement is accurate?
4:56:46 PM	Chairman Schmitt - direct McCoy Note: Fields, Angela	There still appears to be distrust of water system. Aug. 1st in the soundoff section in the paper. Is this a prevalent sentiment in Martin Co?
5:00:49 PM	Chairman Schmitt - direct McCoy Note: Fields, Angela	What are the citizens willing to pay to fix a system that never had rate increases?
5:03:52 PM	Chairman Schmitt - direct McCoy Note: Fields, Angela	Do people have some faith that the new commissioners will fix the problem?
5:06:40 PM	Chairman Schmitt - direct McCoy Note: Fields, Angela	What you think about a merger? Local management vs. partial management? What the members' opinion?
5:08:08 PM	Chairman Schmitt - direct McCoy Note: Fields, Angela	Where has representation got you and the Martin Co. citizens?
5:09:38 PM	Chairman Schmitt - direct McCoy Note: Fields, Angela	There are no vacancies on the board at this time? Do you go to Martin Co. board meetings?
5:10:10 PM	Chairman Schmitt - direct McCoy Note: Fields, Angela	June 25, 2018 Mountain Citizen, editorial. Has the MCCC determined that any increase above the PSC recommendation going to be contested?
5:12:00 PM	Chairman Schmitt - direct McCoy Note: Fields, Angela	Is that the MCCC position at this time.
5:13:07 PM	Chairman Schmitt - direct McCoy Note: Fields, Angela	The water district cannot spend that money unless the PSC approves it first.
5:14:28 PM	VC Cicero Note: Fields, Angela	MCCC is a group to raise awareness of the Martin Co. Water District?
5:15:02 PM	VC Cicero Note: Fields, Angela	Are you as much as an educator as someone raising awareness?
5:16:41 PM	VC Cicero Note: Fields, Angela	Talked about the water line being laid. The school board does not believe the line is being laid correctly. Is there a fiduciary responsibility duty of the school to report this?
5:18:40 PM	VC Cicero Note: Fields, Angela	There will be another hearing on Aug. 29th to discuss the installation of the pipe.
5:19:49 PM	Commissioner Mathews Note: Fields, Angela	Segmented meter surcharg. Fine as we are not going in the whole. Didn't want more than a 17% increase.
5:21:03 PM	Commissioner Mathews Note: Fields, Angela	Do the attorneys speak for the MCCC?
5:21:35 PM	Commissioner Mathews Note: Fields, Angela	If there are new meters and service lines then they may figure out how much water the customers are using.

5:22:15 PM	Commissioner Mathews Note: Fields, Angela	Do people recognize you cannot fix 18 years of neglect without money.
5:23:03 PM	Commissioner Mathews Note: Fields, Angela	Are you seeing mismanagement with the board now?
5:24:02 PM	Chairman Schmitt Note: Fields, Angela	What is the largest school in the district?
5:24:27 PM	Chairman Schmitt Note: Fields, Angela	Martin Co. serves 2,300 people? What does the principle of Martin Co. School earn?
5:26:04 PM	Atty Gardner - cross McCoy Note: Fields, Angela	Meter Surcharge. Do you have any concerns about the implementation of the surcharge?
5:26:54 PM	Atty Gardner - cross McCoy Note: Fields, Angela	A problem seems to be that there is no plan?
5:27:24 PM	Chairman Schmitt Note: Fields, Angela	Data requests due Aug. 10th? Answered by Aug. 17th?
5:29:28 PM	Cromer Note: Fields, Angela	Asked for a PH brief.
5:30:16 PM	Session Paused	
5:31:49 PM	Session Ended	



## Exhibit List Report

2018-00017 07AUG2018

Martin Co. Water District

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**Name:****Description:**

MCCC Exhibit 01

Depreciation Practices for Small Water Utilities, August 15, 1979

NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS  
1102 INTERSTATE COMMERCE COMMISSION BUILDING  
CONSTITUTION AVENUE AND TWELFTH STREET, N.W.  
POST OFFICE BOX 684, WASHINGTON, D.C. 20044  
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DEPRECIATION PRACTICES  
FOR SMALL WATER UTILITIES

AUGUST 15, 1979



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## FOREWORD

To the National Association of Regulatory Utility Commissioners.

In December 1968, a manual entitled "Public Utility Depreciation Practices" was prepared by the Subcommittee on Depreciation, wherein many of the techniques used to determine service lives of depreciable property and depreciation rates were discussed. It was the observation of the Depreciation Subcommittee as well as that of some other state commissions that this manual was too complicated and too time-consuming to be of use to state commissions dealing with small utilities. It was felt that the Subcommittee should prepare a manual that could be used by state commissions dealing with small utilities having a limited amount of records and know-how. In December 1974, a manual entitled "Depreciation Practices for Small Telephone Utilities" was completed. The second of such manuals, for small water utilities, is presented herein and is intended to assist the state commissions in establishing depreciation rates for small water utilities. From an analysis of reports issued by state commissions, the majority of small water utilities generally have less than 200 customers and \$50,000 of annual revenue. The Subcommittee analyzed data from various states and water utilities from which it selected typical average service lives and net salvages by plant accounts. It was assumed that the small water utilities use the same construction techniques, have similar



equipment, maintenance standards and accounting practices as those in the selected sample; therefore, the small water utility average service lives and depreciation rates would be similar to those used by the average water utility.

The manual should allow the staffs of the state commissions to establish reasonable depreciation rates for small water companies and test the reasonableness thereof.

Many state commissions have established their own practices which may differ somewhat from those proposed herein. It is not suggested that this manual replace those practices.

The Subcommittee on Depreciation is continuing its work on depreciation practices for small gas and electric utilities and, in addition thereto, is continuing its work in the preparation of a manual of definitions used in depreciation work.

The members of the Subcommittee on Depreciation working on these practices were:

DEPRECIATION SUBCOMMITTEE

Ray J. Nery, North Carolina, Chairman

E.C. Hostettler, ICC	James R. Safford, New York
Daniel C. McLean, Washington	F.W. Bone, IRS
Robert G. Warnek, FCC	Martin Abramson, California
Alfred E. Geberroth, Michigan	Norman Deutsch, FERC
Larry Hoaglan, Arkansas	Walter D'Haeseleer, Florida

This manual was recommended to the National Association of Regulatory Utility Commissioners by the Committee on Engineering and its Staff Committee. The text of the resolution adopting the manual is stated below. The members of these committees are as follows:

STAFF SUBCOMMITTEE ON ENGINEERING

Henry A. Minch, Maryland, Chairman

Robert G. Warnek, FCC  
William J. Ide, Illinois  
Ray J. Nery, North Carolina  
Harold C. Blatt, Pennsylvania  
Richard Bibb, Tennessee  
Lester Stuzin, New York PSC  
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Robert J. Buckley, Iowa SCC  
Bruno A. Davis, California  
Joseph W. Ferraro, Sr., New York  
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Ray L. Pruett, Utah  
Walter D'Haeseleer, Florida  
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COMMITTEE ON ENGINEERING

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Alfred H. Reichman, Illinois  
James M. Plaskett, Indiana  
Thomas J. Schneider, Montana  
Roger L. Hanson, Minnesota PSC

Resolution Re Adoption of Depreciation  
Practices for Small Water Utilities

WHEREAS, The Committee on Engineering of this Association and its Subcommittee on Depreciation, after extended study and conferences, have developed Depreciation Practices for Small Water Utilities; and

WHEREAS, The Committee on Engineering of this Association has recommended the manual for adoption by this Association; and

WHEREAS, This Association believes that the Depreciation Practices for Small Water Utilities will be of value in assisting regulatory agencies in the practical solution of depreciation problems; now, therefore, be it

RESOLVED, That the Executive Committee of the National Association of Regulatory Utility Commissioners hereby adopts the Depreciation Practices for Small Water Utilities reported by the Committee on Engineering and authorizes its Washington Staff to make it available to the member regulatory agencies of the Association and others as a guide for the practical assistance and guidance to regulatory personnel and others regarding depreciation for small water utilities.

Adopted August 13, 1979

DEPRECIATION PRACTICES  
FOR SMALL WATER UTILITIES

Purpose

The purpose of this manual is to present in a simplified manner the essential information and procedures recommended for estimating the service lives, net salvages and depreciation rates for the plant of small water utilities.

It is hoped that the practices developed in this manual will establish a basis for uniformity and be sufficiently clear to enable the staffs of regulatory commissions to prepare reasonable schedules of depreciation rates and amounts of annual depreciation accruals.

For a more complete discussion on the subject of depreciation practices or for a more detailed analysis of specific depreciation procedures, refer to "Public Utility Depreciation Practices" published in 1968 by the National Association of Regulatory Utility Commissioners, 1102 ICC Building, Post Office Box 684, Washington, D.C. 20044.

Scope

The scope of this manual includes the reasons for depreciation, the straight-line methods used to compute annual depreciation rates, an explanation of the factors used in the depreciation accrual equations, definitions of depreciation terms, some accounting transactions related to depreciation and suggested average service lives, net salvages and depreciation rates for most categories of water utility plant.

The straight-line average service life method of computing the annual depreciation rates used by most regulatory agencies has been developed and used in the text of this manual. The straight-line remaining life method used by some regulatory agencies has been developed and included as Appendix A.

A small water utility is defined for the purpose of this report as a water utility with plant investment of less than \$1,000,000. The simplified and less detailed practices in this manual are designed to meet the needs of regulatory commissions to establish realistic depreciation rates for such utilities.

#### Objectives of Depreciation

The principal objective of recognizing depreciation as a cost of service is to allow the utility to recover the cost of the depreciable investment, less estimated net salvage, over the useful life of the depreciable plant by means of an equitable plan of charges to operating expenses or clearing accounts. The straight-line average service life method presented in this manual meets this objective.

### Base for Depreciation Charges

The depreciation base used in this manual is the original cost of the depreciable property. Original cost is defined as the cost to the person who first devotes the property to public service. The base recoverable through depreciation is limited to cost of the depreciable parts of the property. This generally excludes the cost of organizing, franchises, intangible plant and land.<sup>1</sup> The base can usually be determined from actual construction costs recorded on the utility's books.

Actual construction costs include the cost of the labor, equipment and materials needed to construct the plant, the capitalized interest during construction, administrative and general expenditures such as engineering and supervision, general officers' and clerical salaries and expenses, office supplies and expenses, legal expenditures and other expenses covering injuries and damages, insurance, interest, and taxes. Care must be exercised in spreading these administrative and general expenses between the depreciable and nondepreciable plant such as land. While meticulous distinctions are impossible, reasonably accurate assignments or spreads can be obtained by the utilization of good accounting practices.

<sup>1</sup> Some jurisdiction may exclude contributions from the depreciable base.

### Average Service Life Estimates

Determination of service lives basically involves an analysis of the past and engineering estimates of the future effect of wear and tear, decay, action of the elements, inadequacy, obsolescence and public requirements. In some cases, other factors such as anticipated changeover to new or improved kinds of plant, or specific plans of management must be given consideration. To arrive at a satisfactory estimate of future conditions, past experience generally gives an indication which can be used as at least one element in the estimate. The weight to be given to past experience depends upon the extent to which the conditions affecting service life in the future are expected to be similar or different from those in the past.

Utility property, in conformance with a uniform system of accounts, is classified broadly by function and each function is broken down into accounts. As an example, one function of a water utility is providing transmission and distribution services. The plant providing that function is divided into several accounts such as transmission and distribution mains, fire mains, services, meters, hydrants, and so on. Each account is further divided into subaccounts, groups, and units. Each unit is an individual item of plant, but it is common practice to combine units which have like mortality characteristics, like physical appearance and character and which operate under the same general conditions into one group. There may be one or more

groups within an account. For instance, in the "transmission and distribution mains" account, the units (individual items) of cast iron, steel and asbestos-cement pipe over 12 inches in diameter may constitute one group, units of pipe from 12 to eight inches in diameter may constitute the second group, and the third group might include all pipe smaller than eight inches in diameter. Because of greater simplicity in maintaining records, the group basis is more feasible for most classes of utility property where a large number of units are involved and is the more generally used base among electric, gas, telephone, and water utilities.

In the above example, the average service life of a group containing cast iron, steel, and asbestos-cement pipe would be based on a composite or weighted average of the service lives of all units within the group. When a group such as described above contains units or items of plant with varying estimated average service lives, the average service life of the group is the reciprocal average of the lives as shown under the subject of "weighting" in this manual.

In utility accounting, the depreciation rate is applied to depreciable plant in service. Therefore, the surviving plant is of more interest than the retired plant, and the retirement curve is seldom used. The survivor curve shows the percent of original plant surviving by year.

A reliable method of estimating the average service life of a unit or group is to use the survivor curve method.

Underlying this method are certain statistical concepts which require some explanation. In estimating service life, we are concerned with the span of years from the placement of plant to its retirement. In groups of property seldom do all units reach retirement at the same time. Some will reach it at an early age, many will bunch around a period somewhere near the average and a few will extend out to a long age. The statistician would say we have a number of events (retirements) occurring with different values (ages) which can be illustrated by a graph known as a frequency curve. The frequency curve shows the retirements, as a percentage of the group, occurring in each year of the group's life. From either the frequency curve or survival and retirement ratios, the survivor curves can be developed. The average life or average age at which retirements occur can also be developed from the frequency curve.

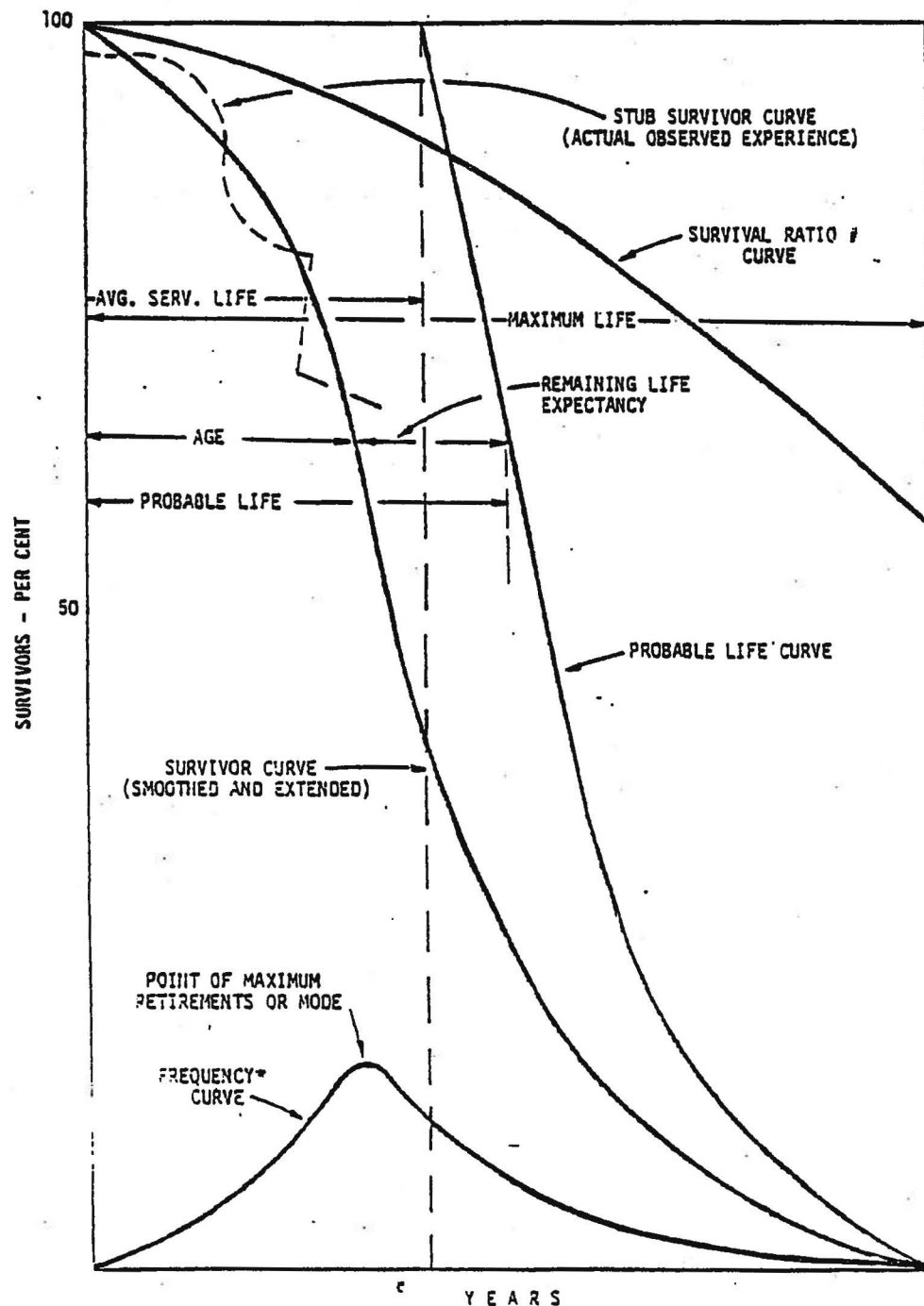
The probable life is the expected life of the survivors, or plant in service, at any given age. At any age after retirements have started, the probable life is longer than the average life because the short-lived units have been removed from the surviving group.

Using the survivor curve method, the remaining life of a group of depreciable property of any age can be determined by finding that age on the survivor curve and projecting horizontally to the probable life curve. The difference in years between the age and probable life is the remaining life. Typical survivor and related curves are shown on



CHART I

## A SURVIVOR CURVE AND RELATED CURVES



\* THE FREQUENCY CURVE IS NOT REQUIRED IN THE USUAL DEPRECIATION COMPUTATIONS.  
 † THE SURVIVAL RATIOS (SURVIVORS AT END OF PERIOD ÷ PLANT EXPOSED AT BEGINNING OF PERIOD) ARE USED IN COMPUTING THE SURVIVOR CURVE.

A small utility may not have sufficient records to develop its own survivor curves. This problem can be resolved by using survivor curves of comparable plant that have been developed by others, by selecting an average service life based on engineering judgment, or by using the forecast or life span method currently being used by other utilities throughout the country.

The forecast or life span method is basically an assumption that a given piece of property will be retired in a specific number of years after placement or that the actual date of retirement will be a certain date. At the final date of retirement of properties, all units comprising the piece of property including interim additions are retired at once. This is in contrast to group properties in which retirement of units occurs gradually until all are retired. The forecast method is basically the simplest method of computing depreciation and, theoretically, could be applied to each unit of property. Rather than using this method for group properties, it is generally used for comparatively large, easily identifiable pieces of property such as buildings, treatment plants, dams, and reservoirs. Appendix B shows an example of this method.

Where lack of appropriate data prevents the application of any of the two previous methods, engineering judgment estimates of service life expectancies may be appropriate. In developing these life expectancies, it is helpful to study possible ranges of life estimates setting down

reasonable minimum and maximum expectancies before coming to final conclusions. As previously indicated under the survivor curve discussion, it should be noted that the average life of all units originally placed in the group is less than the probable life of surviving units because of the prior retirement of short-lived units.

Without the benefits of mortality data or definitive retirements dates for particular pieces of property, it will be very difficult for staffs of regulatory commissions and small water utilities to make a proper estimate of average service life for each group or unit of plant. For that reason, a range of average service lives currently being used by water utilities throughout the country for water facilities designed and installed and maintained in accordance with good water works practice is shown below in Figure 1.

**FIGURE 1**  
**Typical Average Service Lives,**  
**Salvage Rates, and Depreciation Rates**  
**Small Water Utilities**

NARUC Account Number	Class of Plant	Average Service Life <sup>a/</sup> Years	Net Salvage Percent	Depreciation Rate Percent
<u>Source of Supply Plant</u>				
311	Structures and Improvements	35-40		2.9-2.5
312	Collecting & Impounding Reservoirs	50-75		2.0-1.3
313	Lake, River and Other Intakes	35-45		2.9-2.2
314	Wells and Springs	25-35		4.0-2.9
315	Galleries and Tunnels	25-50		4.0-2.0
316	Supply Mains	50-75		2.0-1.3
317	Other Source of Water Supply Plant	30-40		3.3-2.5
<u>Pumping Plant</u>				
321	Structures and Improvements	35-40		2.9-2.5
324-7	Pumping Equipment	20		5.0
328	Other Pumping Plant	25		4.0
<u>Water Treatment Plant</u>				
331	Structures and Improvements	35-40		2.9-2.5
332	Water Treatment Equipment	20-35		5.0-2.9
<u>Transmission and Distribution Plant</u>				
341	Structures and Improvements	35-40		2.9-2.5
342	Reservoirs and Tanks	30-60		3.3-1.7
343	Transmission and Distribution Mains	50-75		2.0-1.3
344	Fire Mains	50-75		2.0-1.3
345	Services	30-50		3.3-2.0
346	Meters	35-45	10	2.6-2.0
347	Meter Installations	40-50		2.5-2.0
348	Hydrants	40-60	5	2.4-1.6
<u>General Plant</u>				
390	Structures & Improvements	35-40		2.9-2.5
391	Office Furniture and Equipment	20-25	5	4.8-3.8
392	Transportation Equipment	7	10	12.9
393	Stores Equipment	20		5.0
394	Tools, Shop & Garage Equipment	15-20	5	6.3-4
395	Laboratory Equipment	15-20		6.7-5.5
396	Power Operated Equipment	10-15	10	9.0-6.0
397	Communication Equipment	10	10	9.0

<sup>a/</sup> These lives are intended as a guide; longer or shorter lives should be used where conditions warrant.

### Net Salvage Estimate

Estimated net salvage is the estimated gross salvage in cash or value which is expected to be realized from utility property retired less the estimated cost of removal involved in retiring such property. The estimated net salvage can be a negative figure in instances where the cost of removal is expected to exceed any gross salvage value. Net salvage is usually expressed as a percentage of the plant retired.

Reasonable salvage estimates and forecasts for small water utilities can be made by trending the net salvage experience and applying engineering judgment. Some of the factors to be considered in developing an estimated salvage percentage are:

- (a) Utility's recorded experience, including trends with the same or similar type property;
- (b) Effect on recorded salvage of transfers, sales and reimbursements from damages or forced relocations;
- (c) Future conditions affecting cost of removal; and
- (d) Changes in accounting practices that have affected salvage and cost of removal amounts.

Where records are available, recorded or past salvage experience for each account may be determined by analyzing the debits and credits to the reserve for depreciation. The retirements should be summarized for each year and the totals of gross salvage and cost of removal determined. Dividing each of the latter by the retirements gives the percent gross salvage and percent cost of removal realized each year. This type of calculation for a series of years

is illustrated in the following table.

FIGURE 2  
Determination of Net Salvage Value  
Pumping Equipment

Year	Plant Retired a	Gross Salvage		Cost of Removal		Net Salvage	
		Amount b	% of Retirement c=b÷a	Amount d	% of Retirement e=d÷a	Amount f=b-d	% of Retirement g=f÷a
1973	\$ 50	\$12	24.0%	\$ 3	6.0%	\$ 9	18.0%
1972	100	22	22.0	7	7.0	15	15.0
1971	70	11	15.7	5	7.1	6	8.5
1970	40	5	12.5	4	10.0	1	2.5
1969	30	7	23.3	5	16.7	2	6.7
1968	30	5	16.7	2	6.7	3	10.0
1967	50	2	4.0	7	14.0	-5	-10.0
Totals	\$370	\$64	17.3%	\$33	8.9%	\$31	8.4%

The above tabulation shows that the past recorded net salvage value amounted to 8.4% of the cost of plant retired.

In the use of the straight-line average service life method for computing depreciation rates, an estimated net salvage covering the entire life of the unit or group of property is needed. The utility must estimate salvage values for property that will retire many years in the future. In doing so, it should be remembered that with most depreciable property the percent gross salvage realized on retirement varies with the age of the unit. Past experience is usually based on only a few retirements, probably of shorter-lived units. Generally, the older units yield lower values. The decrease in gross salvage with age may be approximated by assuming a straight-line diminution from

realized gross salvage of early retirements to the predicted ultimate gross salvage of oldest-lived units. A sample calculation of estimated net salvage values, using recorded values developed in the preceding tabulation and judgment values based on anticipated future conditions, is shown below.

FIGURE 3  
Average and Future Net Salvage  
Pumping Equipment

Factors	% of Retmt.	Amt. of Retmt.	Source of Data
A. Gross Salvage Past Retirements	17.3%	\$ 370	Preceding tabulation
B. Gross Salvage Last Survivors	5.0		Selected by judgment
C. Gross Salvage Future Avg. = $\frac{A+B}{2}$	11.2	3,755	Plant presently in service
D. Average Gross Salvage	11.7		$(17.3 \times 370 + 11.2 \times 3755) \div (370 + 3755)$
E. Cost of Removal Past Retirement	8.9		Preceding tabulation
F. Cost of Removal Future Retmt.	11.0		Selected by judgment
G. Average Cost of Removal	10.8		$(8.9 \times 370 + 11.0 \times 3755) \div (370 + 3755)$
H. Future Net Salvage	0.2		C-F
I. Average Net Salvage	0.9		D-G

Where records are not available, management and engineering judgments must be made and comparisons with other utilities operating under similar conditions can often be made to develop reasonable estimated net salvage values. For a thorough discussion on estimating net salvage, the reader is referred to Chapter 3 of "Public Utility Depreciation Practices" published by the National Association of Regulatory Utility Commissioners, copyright 1968.

### Weighting

Accounts frequently include more than one unit or group of depreciable utility property with different average service lives. To avoid the detailed work of calculating the accrual for each unit or group within an account, an average service life or a composite average service life should be obtained for each account. Reciprocal weighting should always be used in computing an average service life for an account or class of plant comprised of several groups. Only reciprocal weighting will derive the same total as if accruals were developed for each unit or group.

An example of reciprocal weighting to establish a composite average service life is shown in the following tabulation:

FIGURE 4  
Weighted Average Service Life  
Pumping Equipment

Group	Gross Plant Investment	Average Service Life	Reciprocal Weighting
(a)	(b)	(c)	b÷c
1	\$1,500	30.0 years	50 \$/year
2	1,255	20.0	63
3	1,000	27.0	37
	\$3,755	25.0 years	150 \$/year

The weighting in column (d) is obtained by dividing the plant dollars in column (b) by the average service life in column (c) of every category to be weighted. A weighted



average service life of 25.0 years is obtained by dividing the sum of column (b) by the sum of column (d).

In certain accounts as in the transmission and distribution mains account where the total account consists of several groups of pipe with each group having a different average service life and where the units constituting the group have different physical qualities and average service lives, it may be necessary to weight the units within each group first and then weight the groups to develop a composite or weighted average for the entire account.

Weighting can also be applied to develop a composite salvage for a group or an account. The following tabulation is an example:

FIGURE 5  
Weighted Net Salvage Value  
Pumping Equipment

Group	Gross Plant Investment	Average Service Life	Life Weight	Net Salvage Percent	Salvage Weight
a	b	c	d=b+c	e	f=dxe
1	\$1,500	30.0 years	50 \$/year	8.0%	400% \$/year
2	1,255	20.0	63	10.0	630
3	1,000	27.0	37	12.7	470
	\$3,755	25.0 years	150 \$/year	10.0%	1,500% \$/year

The weighting of the net salvage values of the above three groups resulted in a weighted net salvage value of 10.0%. The total of column (f) was divided by the total of column (d) to obtain the weighted value of net salvage.

#### Theoretical Reserve Studies

A theoretical depreciation reserve is defined as that amount which together with the estimated future depreciation accruals will equal the original cost of the property less net salvage. Studies to determine this theoretical amount may be used for several purposes.

Certain jurisdictions may use the theoretical reserve for rate-making purposes where no reasonable actual reserve is available or for computing fair value in some fair value jurisdictions. It may also be used to allocate the total book reserve to individual account, plant categories or areas.

In making such studies, it is best to separate short-lived plant such as motor vehicles from the longer-lived water plant to be sure that the plant is fully accrued at the time of replacement. The prices, the dates of purchase, the expected dates of disposal, and the expected allowances at trade-in will usually be readily available for these short-lived facilities. With this data, the amount that should be in the reserve can be quickly determined.

The degree of merit and value of a theoretical depreciation reserve study are discussed in the manual,

"Public Utility Depreciation Practices," published in 1968 by the NARUC. To use its suggested procedures for the calculation of a theoretical reserve, the manual assumes that the depreciation analyst has sufficient historical data on which to base a judgment on such things as mortality dispersion, average service life, and net salvage. However, such data is seldom available for a small water utility.

When adequate records are not available, a single theoretical reserve should not be selected on an arbitrary or convenient basis. Rather, it must be based on reasonable assumptions for service life, retirement dispersion, and salvage.

For the company that has periodic additions and retirements, no matter how large or small, a theoretical reserve percentage can be determined by assuming a certain dispersion of retirements, by estimating the average service life and by determining the average realized life of the plant. The average realized life is different from the average age in that it includes not only the ages of presently existing plant but also those for past retirements. An example of the determination of average realized life is presented in Appendix C.

The example assumes an average service life of 35 years and develops a realized life of 10.45 years. Interpolating between 10 and 11 years in Appendix D, the reserves would be 21.8% to 29.9% for a 30-year life and 16.9% to 21.9% for a 45-year life. Interpolating between these two sets of

figures, a range of 22.2% to 27.2% is obtained for a 35-year service life.

#### Federal Income Tax Depreciation

Under section 167 of the Internal Revenue Code 1954, the general rule for depreciation for Federal income tax purposes is that there shall be allowed as a depreciation deduction a reasonable allowance for exhaustion and wear and tear (including a reasonable allowance for obsolescence) of property used in a trade or business or held for the production of income.

Accelerated methods of depreciation are provided by the 1954 Code, as well as the straight-line method most commonly used prior to 1954. In 1962, Rev. Proc. 62-21, 1962-2 C.B. 418, supplanted Bulletin F, old guidelines used for many years by taxpayers and the Internal Revenue Service in arriving at useful lives for depreciable property. Rev. Proc. 62-21 established guideline rules and lives for various classes of depreciable properties and generally liberalized depreciation deductions for income tax purposes. Although water utilities were not materially affected, some advantage was gained by the establishment of one guideline life for depreciable assets of water utilities except in the area of specific depreciable assets used in all business activities.

In 1971 an elective Asset Depreciation Range (ADR) system revoked Rev. Proc. 62-21 guidelines, including subsequent

supplements and amendments thereto, for taxable years ending after December 31, 1970. The new elective system established vintage accounts (closed-end depreciation accounts containing eligible property to which a taxpayer elects to apply the ACR system) with an asset depreciation range in years (a lower limit, an asset guideline period, and upper limit) for each class of depreciable assets acquired after December 31, 1970. This system was modified by section 167 (m) of the 1954 Code in the Revenue Act of 1971 to include assets acquired both before January 1, 1971, and after December 31, 1970. For depreciable assets acquired before January 1, 1971, the system is called the Class Life (CL) system; for depreciable assets acquired after December 31, 1970, the system is called the Class Life Asset Depreciation Range (CLADR) system. The two systems are similar but they apply to depreciable assets differently; e.g., there is no range of years applicable to assets acquired prior to January 1, 1971. The asset guideline period is used instead. Section 1.167(a)-11 of Income Tax Regulations applies to assets acquired after December 31, 1970, and section 1.167(a)-12 applies to assets acquired before January 1, 1971.

To use the CLADR system, additions and retirements must be to and from vintage accounts, and gross salvage credited to the vintage account reserves, with removal costs charged to expense on retirement. Either gross or net salvage may be used for the CL system, but for tax purposes, some water companies have asked and received permission to change to

gross salvage accounting to be consistent with the CLADR system. The cost of reinstalling depreciable assets that are not retired but merely relocated is treated as part of the repair allowance unless the permissible repair allowance is exceeded, in which case the excess is capitalized in a special vintage account.

In Appendix E is a summary of some of the asset guideline classes, periods, ranges, and repair allowances provided by Rev. Proc. 77-10, 1977-1 C.B. 548, updating Rev. Proc. 72-10, 1972-1 C.B. 721, that may be used by water companies.

Prior to the CLADR and CL systems estimated salvage was generally considered as either a reduction of the amount subject to depreciation (basis) or by a reduction in the rate of depreciation (rate). Under these two systems basis or rates are not affected, but salvage is not disregarded. Depreciation can only be claimed until the adjusted basis equals estimated salvage value. For water utilities class 49.3, the maximum rate would be  $100 \div 40 = 2 \frac{1}{2}\%$ . Under section 167 of the Code when depreciable property is placed in service, estimated salvage can be reduced by 10%. For example, if salvage is reasonably estimated at 5% it can be reduced to zero, if 25%, it can be reduced to 15%, and depreciation may be claimed for the full cost in the first instance and 85% of the cost in the second instance.

Both the CLADR and CL systems are elective each taxable year; however, under CLADR, the system must be applied to vintage accounts until all the assets in the vintage

accounts are retired. If one of these systems is not elected, taxpayers must demonstrate the useful life used and follow the prior rules under section 167 of the Code with the exception that Rev. Proc. 62-21 and Bulletin F guidelines are no longer applicable.

If the CLADR system is elected, the annual asset guideline repair allowance percentage which applies to both CLADR and CL property may also be elected (see last column in Appendix E). Sufficient books and records must be kept for expenditures incurred for both CLADR and CL assets. Under the repair allowance election, expenditures for repairs, maintenance, rehabilitation or improvement of "repair allowance property" (investments subject to depreciation) that are not clearly capital expenditures are treated as deductible repairs to the extent that they do not exceed the repair allowance percentage of the repair allowance property. The excess, if any, is capitalized in a special vintage account as a property improvement in that class.

These newer income tax procedures for depreciation have only been briefly described, because they are complicated; but even with the complications, most utility companies that were opposed to the maintenance of continuing property records have adopted the CLADR and CL systems which generally require the maintenance of records in greater detail than that of regulatory authorities. With the consideration of added tax incentive there is a general tendency toward greater detail rather than lesser in most

phases of utility operations, and, therefore, it would seem to be desirable for utilities to establish a system of continuing property records.

#### Depreciation Rate Calculations

To compute the annual depreciation rate for the straight-line average service life method, the basic equation is:

$$d = \frac{100-c}{L}$$

Where:

d = Depreciation rate in percent.  
c = Estimated average net salvage percentage.  
L = Estimated average service life.

Items c and L require estimates based on both experiences of the past and judgments of future conditions.

The values for service life and salvage components used in the above formula are the weighted average values for all of the plant in each of the accounting classifications. Weighted average values were discussed previously in this manual.

In actual practice, not only is a depreciation rate in percent desired but also a depreciation accrual in dollars. For the straight-line method, the equation is:

$$D = \frac{B-C}{L} \text{ or } \left( \frac{100-c}{100L} \right) \times B$$

where D is the depreciation accrual in dollars, C is the



estimated average net salvage in dollars and B is the book cost of gross depreciable plant in dollars.

The composite annual depreciation accrual rate is the ratio of the sum of the depreciation accrued from all depreciable accounts to the gross depreciable plant in the same year. Expressed as a percentage, the equation for the composite or total annual accrual depreciation rate is:

$$d = \% \text{ Rate} = \frac{\text{Annual Accrual}}{\text{Gross Depreciable Plant}} \times 100 = \frac{D}{B} \times 100$$

#### Determination of Annual Depreciation Accrual

The form for calculating annual depreciation accruals and rates by the average service life method is shown with sample calculations in Figure 6 below.

FIGURE 6

Company \_\_\_\_\_  
 Area/Dept. \_\_\_\_\_

Summary of Annual Depreciation Rate Determination  
 Straight-line Average Service Life Method

Year \_\_\_\_\_

NARUC Account Number	Description Plant	Gross Depreciable Plant	Average Service Life Years	Net Salvage Percent	Depr. Rate Percent	Annual Accrual
		1	2	3	4	5
311	Structures & Improv.	\$ 3,014	40		2.5	\$ 75
314	Wells	11,290	30		3.3	373
324	Pumping Equip. <sup>1/</sup>	3,755	25	10	3.6	135
342	Reservoirs & Tanks	8,628	50		2.0	173
343	Trans. & Distr. Mains	53,550	60		1.7	( 0
345	Services	9,452	40		2.5	236
346	Meters	6,038	40	12	2.2	133
348	Hydrants	995	50		2.0	20
391	Off. Furniture & Equip.	1,721	15	5	6.3	108
392	Transportation Equip.	6,290	6	15	14.2	395
	Total	\$104,733			2.9 <sup>2/</sup>	\$3,056

<sup>1/</sup> Derivation of Columns 4 & 5

$$\text{Col. 4 (Depr. Rate)} = \left( \frac{100-10}{100 \times 25} \right) \times 100 = 3.6\%$$

$$\text{Col. 5 (Annual Accr.)} = \$3,755 \times 3.6\% = \$135$$

<sup>2/</sup> Composite Rate of 2.9% is derived by dividing the sum of Column 5 by the sum of Column 1 and multiplying the product by 100.  
 $\$3,056 \div \$104,733 = 0.029 \times 100 = 2.9\%$

The first two unnumbered columns on the form are for the listing of an appropriate plant, account number and its corresponding description. Column (1) shows the dollar amount of gross depreciable plant in each account of the utility's books at the beginning of the year. This is element B in the accrual equation.

Columns (2) and (3) are provided for the two elements in the depreciation accrual calculation which must be estimated. These are the average service lives to be assigned to a property and the percentage of average net salvage which can be expected when the property is retired.

For the average service life method, column (4) shows the depreciation rate for each account. This rate is derived from the estimates of average service lives and salvage percentages to be shown in columns (2) and (3). The annual accrual for each account to be entered in column (5) is calculated by multiplying plant dollars in column (1) by the depreciation rate in column (4).

#### Recording the Depreciation Accrual

There are several methods which can be used in calculating the annual accrual to be recorded on the utility's books for the year. The simplest is to apply the predetermined annual depreciation rates to the beginning-of-year depreciable plant. Another method is to estimate the end-of-year plant and then apply the depreciation rates to the average of the beginning- and end-of-year plant. The last method requires

an adjustment to be made to the annual accrual after the recorded end-of-year plant amounts become available. In either method the utility may record the annual accrual as a single amount or in 12 monthly entries at its discretion or at the discretion of the regulatory commission. A third method employed by some of the larger utilities is to apply the annual depreciation rates each month to that month's beginning-of-month plant account balances or average monthly balances and record  $1/12$  of the result as that month's accrual.

#### Depreciation Accounting

Reference should be made to an appropriate system of accounts and instructions for complete details of accounting transactions. The following tabulation presents some of the essential transactions in a double entry set of records:

FIGURE 7

Depreciation Accounting		
Transaction	Debit	Credit
Original cost on placing plant in service	Plant account (asset account)	Cash, materials and supplies
Depreciation accruals	Operation expenses and clearing accounts	Depreciation reserve account
Retirement of original cost of plant	Depreciation reserve account -	Plant account (reduces the asset balance)
Cost of removal on retirement from service	Depreciation reserve account	Cash, or accounts payable
Gross salvage on retirement from service	Cash, materials and supplies or other investment accounts receivable	Depreciation reserve account

The accounting for additions and retirements should be promptly and properly recorded at the time of installation or retirement so that the plant and reserve accounts at all times reflect the current conditions.

#### Reasonableness of Final Report

An overall test of reasonableness should be applied to the final determination of the annual accrual. The overall composite depreciation rate produced by the accrual calculation should normally fall within a range of from 2.0% to 4.0%. When results are obtained which fall significantly outside this range, further review should be made to ascertain the nature of any special conditions which may be influencing the result. Under most circumstances, estimates of average service lives and net salvage should be made at intervals of not more than five years.

DETERMINATION OF  
STRAIGHT-LINE REMAINING LIFE  
DEPRECIATION ACCRUALS

General

The straight-line remaining life method is another method to determine depreciation accruals and is used frequently enough to warrant development in this manual. The factors considered in the straight-line remaining life method tend to control erratic fluctuations in the annual or periodic accruals. This method also has as its objective the control of excessive or deficient accumulations in the depreciation reserve.

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Under the straight-line remaining life method, the net depreciable plant is recovered over the estimated remaining useful life of the property. This method differed significantly from the straight-line average service life method under which the depreciable plant is recovered over its entire estimated average life.

The straight-line remaining life method meets the objectives of depreciation accounting. The base for the depreciation charges is the same as the base used in the straight-line average service life method, explained earlier in the text.

The Depreciation Rate Equation

The basic equation for determining the annual depreciation rate by the straight-line remaining life method is:

$$d = \left( \frac{B - C' - U}{E} \right) \times \frac{100}{B}$$

Straight-Line Average Service Life

$$d = \frac{100 - C}{L}$$

Where:

B = book cost of the gross depreciable plant in dollars.

C' = estimated net salvage in dollars from survivors.

d = annual depreciation rate in percent.

U = book depreciation reserve in dollars.

E = estimated average remaining life of survivors.

L = ~~estimated~~ average service life.

Items B and U are obtainable from the utility's books of accounts. Item C' is estimated based on past experience and conditions likely to occur in the immediate future.

Determination of Annual Depreciation Accrual

The form used and examples of the straight-line remaining life method of calculating annual depreciation accruals are shown in Table I on page 33.

The first two unnumbered columns are for the listing of appropriate plant account number and its corresponding description. Column (1) shows the dollar amount of gross depreciable plant in each account of the utility's books at the beginning of the year. This is element B in the accrual equation.

Columns (2) and (6) show the two elements in the depreciation accrual calculation which must be estimated. They are the percentage of net salvage which can reasonably be expected when the property is retired and the service lives to be assigned to the property.

Column (3) is designed to show the estimated future net salvage dollars calculated by multiplying the plant dollars in Column (1) by the salvage percentage in Column (2). Column (4) is provided for the recorded depreciation reserve taken from the utility's books which, together with the salvage dollars, is deducted from the gross plant amounts to produce the net balance shown in Column (5).

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Column (6) shows one weighted average service life for all the plant, units or groups within each account. Column (7) shows the average service life of the survivors (sometimes called probable life) and equals age plus remaining life. Column (9) shows the weighted average remaining life (element E in the accrual equation) in years and is determined either by subtracting the average age in Column (8) from the average service lives in Column (7) or determined directly by either the Forecast, Approximation or Direct Judgment Methods as noted in the footnotes in Table I. The annual accrual in Column (10) is computed by dividing the net balance in Column (5) by the average remaining life in Column (9). Column (11) shows the



depreciation rate for each account derived by dividing the annual accrual in Column (10) by the gross plant in Column (1).

An overall depreciation rate or composite rate for the entire plant is determined by dividing the total annual accrual of all accounts by the total gross plant. The composite depreciation rate in Table I is 3.71%.

The discussion in the text relating to the reasonableness of the annual depreciation accrual, the recording of the depreciation accrual, and general depreciation accounting applies equally to the straight-line remaining life method.

TABLE 1  
SUMMARY OF  
ANNUAL DEPRECIATION RATE DETERMINATION  
STRAIGHT LINE REMAINING LIFE METHOD

Account No.	Description	Gross Plant at Beginning of Year	<i>Est.</i> Est. Future Net Salvage (Est. Gross Salvage Less Cost of Removal)		Depreciation Reserve at Beginning of Year	Net Balance (1)-(3)-(4)	<i>Est.</i> Average Service Life Original Group      Survivors		Average Age	Remaining Life	Annual Accrual (5) ÷ (9)	Depreciation Accrual Rate (10) ÷ (1)
			(2)	(3)			(6) Yrs.	(7) Yrs.		(8) Yrs.		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
311	Structures & Improvements	19,540	5.0	977	8,014	10,549	--	--	--	18 <sup>1/</sup>	586	3.0
315	Wells	13,786	0.0	--	9,618	4,168	--	--	--	16 <sup>1/</sup>	261	1.9
314	Springs and Tunnels	165	0.0	--	49	116	--	--	--	10 <sup>1/</sup>	6	3.6
324	Pumping Equipment	22,028	2.0	441	8,294	13,293	25	--	--	15 <sup>2/</sup>	886	4.0
332	Water Treatment Equipment	1,813	5.0	91	531	1,191	18	--	--	13 <sup>2/</sup>	92	6.1
343	Trans. & Distr. Mains	170,096	(5.0)	(8,505)	61,743	116,858	30	--	--	10 <sup>2/</sup>	6,492	3.8
342	Reservoirs and Tanks	21,103	0.0	--	6,805	14,298	33	--	--	17 <sup>2/</sup>	841	4.0
348	Hydrants	4,105	3.0	123	315	3,667	25	--	--	21 <sup>2/</sup>	175	4.3
345	Services	29,993	(10.0)	(2,999)	12,344	20,648	25	--	--	16 <sup>3/</sup>	1,291	4.3
346	Meters	34,865	15.0	5,230	6,974	22,661	30	--	--	22 <sup>2/</sup>	1,030	3.0
349	Other Trans. & Distr. Plant	931	0.0	--	120	811	18	22	13	9 <sup>4/</sup>	90	9.7
372	Office Furniture & Equipment	657	0.0	--	214	443	11	12	5	7 <sup>4/</sup>	63	9.6
374	Stores Equipment	2,471	5.0	124	451	1,896	12	13	3	10 <sup>4/</sup>	190	7.7
378	Tools, Shop & Garage Equip.	6,579	15.0	987	2,283	3,309	7	8	4	4 <sup>4/</sup>	827	12.6
TOTALS		320,132	-	(3,531)	117,755	213,903	--	--	--	--	12,830	3.91

1/ Remaining life determined by forecast method.

2/ Remaining life determined by selecting survivor curve.

3/ Remaining life determined by computation from accounting records. (See Appendix E)

4/ Column 7 - Column 8.

## DEPRECIATION STUDY BY FORECAST OR LIFE SPAN METHOD

Example: A dam is put into service at the beginning of 1961. The estimated life span is 40 years and the estimated time of retirement is the end of the year 2000. No salvage is assumed. Developments occur as follows:

No.	Year End	Event	Additions \$	Retirements \$
1	1963	Outlet works modified	4,500	3,000
2	1965	Spillway modified	6,000	3,000
3	1970	Fencing installed	1,500	-
4	1980	Sealant placed (capitalized)	3,000	-
5	1985	New source of water supply procured. Existing source phased out over a 5-year period after which dam is retired.		

Year	Plant Surviving Beg. of Yr.	Addi- tions \$	Retire- ments \$	Average Service Life					Depreciation		
				Orig. Dam	Addition No. 1 2 3 4				Rate %	Accrual \$	Beg. Ir. Reserve
1961	\$42000	-	-	38 <sup>1/</sup>					2.63 <sup>2/</sup>	1105	
1962	42000	-	-	38					2.63	1105	\$ 1105
1963	42000	4500	3000	38					2.63	1105	2210 <sup>3/</sup>
1964	43500	-	-	38	38 <sup>3/</sup>				2.63	1144	315 <sup>4/</sup>
1965	43500	6000	3000	38 <sup>2/</sup>	38				2.63 <sup>2/</sup>	1144	1459
1966	46500	-	-	20 <sup>2/</sup>	20	18			5.00 <sup>2/</sup>	2325	(397)
1967	46500	-	-	20	20	18			5.00	2325	1929
1968	46500	-	-	20	20	18			5.00	2325	4253
1969	46500	-	-	20	20	18			5.00	2325	6578
1970	46500	1500	-	20 <sup>2/</sup>	20	18			5.00 <sup>2/</sup>	2325	9903
1971	48000	-	-	30 <sup>2/</sup>	31	29	24		3.33 <sup>2/</sup>	1598	11229
1972	48000	-	-	30	31	29	24		3.33	1598	12825
1973	48000	-	-	30	31	29	24		3.33	1598	14424
1974	48000	-	-	30	31	29	24		3.33	1598	16022
1975	48000	-	-	30	31	29	24		3.33 <sup>2/</sup>	1598	17520
1976	48000	-	-	33	34	32	27		3.03 <sup>2/</sup>	1454	19218
1977	48000	-	-	33	34	32	27		3.03	1454	20672
1978	48000	-	-	33	34	32	27		3.03	1454	22125
1979	48000	-	-	33	34	32	27		3.03	1454	23580
1980	48000	3000	-	33	34	32	27		3.03 <sup>2/</sup>	1454	25034
1981	51000	-	-	34	36	34	29	19	3.13 <sup>2/</sup>	1596	25488
1982	51000	-	-	34	36	34	29	19	3.13	1596	29084
1983	51000	-	-	34	36	34	29	19	3.13	1596	29680
1984	51000	-	-	34	36	34	29	19	3.13	1596	31275
1985	51000	-	-	34	36	34	29	19	3.13 <sup>2/</sup>	1596	32872
1986	51000	-	-	26	27	25	20	10	4.17 <sup>2/</sup>	2127	34268
1987	51000	-	-	26	27	25	20	10	4.17	2127	36595
1988	51000	-	-	26	27	25	20	10	4.17	2127	38722
1989	51000	-	-	26	27	25	20	10	4.17	2127	40849
1990	51000	-	51000	26	27	25	20	10	4.17	2127	42975
1991	-	-	-	-	-	-	-	-	-	-	(5897) <sup>3/</sup>

(See Sheets 2 & 3 for Footnotes)

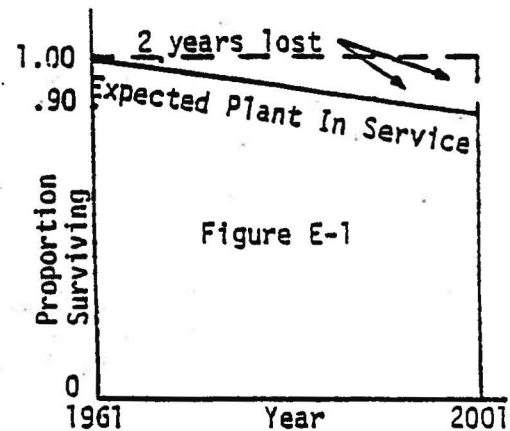
## Footnotes:

1/ It is assumed that 10% of the original installation will be retired in piecemeal (interim) retirements over the life of the dam, which would average to 0.25% per year. Over a 40-year period this would amount to a loss of 2 years' service life ( $\frac{1}{2} \times 40 \times .10$ ). See Figure E-1.

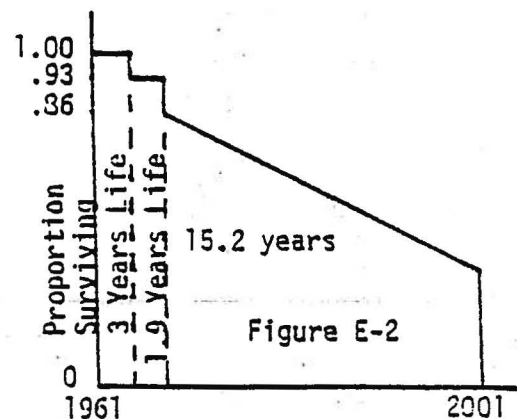
2/ Assuming zero salvage, the depreciation rate is  $100 \div 38 = 2.63\%$  and the Accrual is  $.0263 \times 42000$  or \$1,105.

3/ It is assumed that depreciation studies are made every 5 years, as recommended in the text of this practice. Thus, the 1963 addition takes the same life as the original addition until the time of the next study.

4/ Depreciation reserve at the end of the third year (beginning of fourth year) is prior years' reserve of \$2,210 plus \$1,105 accrual less \$3000 retirement.



5/ A depreciation study made as of the beginning of 1966 determines that the experienced interim retirement rate is  $(0 + 0 + 3000 + 0 + 3000) \div (42,000 + 42,000 + 42,000 + 43,500 + 43,500)$ , which equals 2.82%. For the remaining 35 years, this represents a loss of life of  $\frac{1}{2} \times 35 \times (.0282 \times 35)$ , or 17.3 years. The remaining life is  $35 - 17.3$  or 17.7 years for the remaining plant. It would apply to the 1965 placement. The unrealized life of the original placement would be 86% of this, or 15.2 years. See Figure E-2. During the first 3 years, when the original placement was intact, the life that was realized was a full 3 years. During the next two, when only 93% of the original investment still survived, the realized life was  $2 \times .93$  or 1.9 years. The average service life for the full span is  $3 + 1.9 + 15.2$ , or 20.1 years. For the 1963 placement, from which nothing has been retired, the realized life is 2.0 years and the unrealized life is 17.7 for a total of 19.7. Both of these would round to 20 years.



6/ Composite average service life is:

Vintage a	Plant Surviving b	Service Life c	Accrual d=b+c
1961	\$36000	20	\$1800
1963	4500	20	225
1965	6000	18	333
	<u>\$46500</u>	<u>19.7 years*</u>	<u>\$2358</u>

\* 19.7 yr. from  $46,500 \div 2358$  use 20

$$\text{Depreciation rate} = \frac{100}{20} = 5.0\%$$

- 7/ At the time of the 1971 depreciation study, the experienced interim retirement rate is  $6000 \div (3 \times 42,000 + 2 \times 43,500 + 5 \times 46,500)$ , or 1.35%. For the remaining 30 years the loss of life is  $\frac{1}{2} \times 30 \times (.0135 \times 30)$ , or 6.1 years and the remaining life is 23.9 years. This applies directly to the 1970 addition and is added to the realized lives of 5 and 7 years for the 1965 and 1963 additions. The realized life of the 1961 addition is  $3 \times 1.0 + 2 \times .93 + 5 \times .86$ , or 9.2 years and the unrealized life is  $.86 \times 23.9$ , or 20.6 for a total average service life of 29.8 years. The composite life using the procedure as in 6/ above is 30 years and the depreciation rate is 3.33%.

- 8/ For the 1976, 1981 and 1986 studies, the following factors can be derived using the same procedures as above:

Date of Study	Experienced Int. Ret. Rate-%	Remaining Life	Composite Life	Depreciation Rate-%
1976	0.88	22.3	33	3.03
1981	0.65	18.7	32	3.13
1986	0.51	4.9	24	4.17

- 9/ Because of the reduction in the life span of the dam from 40 to 30 years, there is a shortage in the reserve at the time of retirement of the dam. The shortage is not large, however, when compared with annual accruals and no corrective measures should be taken. Rather, the span of the replacement facility should be adjusted downward as, for example, from 40 to 30 years, in expectation of a similar overestimation. The beginning interim retirement rate should also be higher (0.5 instead of 0.25), reflecting past experience.

Form D-5		UTILITY Alpha Water Company		REALIZED LIFE AND REMAINING LIFE OF PLANT COMPUTED FROM ACCOUNTING RECORDS AS OF 1/1 60	
AREA/DEPT -		AC 345 Services			
YEAR	GROSS ADDITIONS		TRANSFERS IN AND (OUT)	PLANT BALANCES (END OF YEAR)	
	RECORDED	ADJUSTED			
1959	\$1,923	\$1,923	-	\$29,993	
58	2,705	2,705	-	28,518	
57	1,620	1,620	-	26,225	
56	1,278	1,278	-	24,998	
55	1,127	1,127	-	23,992	
1954	1,431	1,431	-	23,083	
53	1,733	2,054	321*	21,901	
52	983	983	-	20,018	
51	308	308	-	19,114	
50	447	447	50	18,806	
1949	959	959	-	18,309	
48	1,323	1,323	-	17,410	
47	1,076	1,076	-	16,154	
46	1,442	1,442	-	15,209	
45	1,193	1,193	-	13,873	
1944	1,754	1,754	-	12,791	
43	1,893	1,893	-	11,110	
42	1,276	1,276	-	9,244	
41	521		-	8,048	
40	409		-	7,617	
19					
			* Originally devoted to public service in 1944.		
TOTALS	(1)	24,792	(2) 371	(3)	358,797

TOTALS TAKEN FROM MOST RECENT YEAR BACK TO SELECTED BEGINNING YEAR OF 1942			
(4) Beginning Plt. Bal.	8,048	(5) 1/2 Beg. Plt. Balance	4,024
(6) Plant Exposed=(1)+(4)	32,840		
(7) Plant Surviving	29,993	(8) 1/2 Surviving Balance	14,997
(9) Portion Surviving=(7)/(6)	0.9133	(10) 5 Years=(3)-(5)-(8)	339,776
		(9 x 371)	
(11) Correction to Past Dollar Years for Transfers:	3,339		
(12) Estimated Av. Serv. Life	35.00 Yrs.	(13) Past Dollar Years	343,115
(14) Realized Life=(13)/(6)	10.45		
(15) Difference(12)-(14)	24.55	(16) Rem. Life=(15)/(9)	26.88 Yrs.
(17) Conclusion: (Use Rounded Value) Remaining Life	27 Yrs.		

# RANGE OF DEPRECIATION RESERVE FOR AVERAGE REALIZED LIFE<sup>1</sup>

Average Realized Life In Years	Range of Depreciation Reserve As A Percentage Of Plant In Service		
	For 30-Year Life	For 45-Year Life	For 60-Year Life
1	2 to 4	1 to 3	1 to 2
2	5 to 7	3 to 5	2 to 4
3	7 to 10	5 to 7	4 to 5
4	10 to 13	6 to 9	5 to 7
5	12 to 16	8 to 11	6 to 8
6	14 to 19	10 to 13	7 to 10
7	16 to 22	11 to 15	8 to 12
8	18 to 24	13 to 17	10 to 13
9	19 to 27	14 to 19	11 to 15
10	24 to 29	16 to 21	12 to 16
11	26 to 31	18 to 23	13 to 17
12	27 to 33	19 to 24	14 to 19
13	29 to 35	21 to 26	15 to 20
14	30 to 37	22 to 27	16 to 22
15	31 to 39	24 to 29	17 to 23
16	32 to 40	25 to 30	18 to 24
17	33 to 42	26 to 31	19 to 25
18	34 to 43	27 to 33	21 to 27
19	35 to 43	28 to 34	23 to 28
20	36 to 43	29 to 36	24 to 29
21	36 to 43	30 to 37	25 to 30
22	36 to 43	31 to 38	26 to 31
23		32 to 39	27 to 32
24		32 to 40	27 to 33
26		34 to 42	29 to 35
28		35 to 43	30 to 37
30		36 to 43	31 to 39
32		36 to 43	32 to 40
35		36 to 43	34 to 42
45			36 to 43

<sup>1</sup>For the guideline reserves, the dispersion characteristics of Iowa Curves of the  $R_1$ ,  $R_2$ , and  $L_1$  and  $L_2$  shapes were used; the net salvage was assumed to be zero.

**ASSET GUIDELINE CLASSES AND PERIODS, ASSET  
DEPRECIATION RANGES, AND ANNUAL ASSET GUIDELINE  
REPAIR ALLOWANCE PERCENTAGE**

Asset guide- line class	Description of assets included	Asset depreciation range (in years)			Annual asset guideline repair allowance percentage
		Lower limit	Asset guideline period	Upper limit	

**SPECIFIC DEPRECIABLE ASSETS USED IN ALL BUSINESS ACTIVITIES, EXCEPT AS NOTED:**

00.11	Office Furniture, Fixtures, & Equip- ment: Includes furniture & fixtures which are not a structural component of a building. Includes such assets as desks, files, safes, and communica- tions equipment. Does not include communications equipment that is included in other CLADR classes	8	10	12	2
00.13	Data Handling Equipment, except Computers: Includes only typewriters, cal- culators, adding & accounting machines, copiers, & duplicat- ing equipment	5	6	7	15
00.22	Automobiles	2.5	3	3.5	16.5
00.241	Light General Purpose Trucks: Includes trucks for use over the road (actual unloaded weight less than 13,000 pounds)	3	4	5	16.5

**DEPRECIABLE ASSETS USED IN THE FOLLOWING ACTIVITIES:**

49.3	Water Utilities: Includes assets used in the gather- ing, treatment, & commercial dis- tribution of water	40	50	60	1.5
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